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LAKE CARRIERS' ASSOCIATION.

To consider and take action upon all general questions relating to the navigation and carrying business of the Great Lakes, to maintain necessary shipping offices and in general to protect the common interests of Lake Carriers, and to improve the character of the service rendered to the public.

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Francis,) to Lake Champlain, 46 miles of canal and two locks, and from Lake Champain to the upper Hudson, 35 miles of canal, mainly in 28 miles of the divide cut. This is all down hill and has ample water supply, and about half a dozen locks altogether.

A waterway down the St. Louis or Chateaugay river valley, about ten miles, would make a waterway from Lake St. Louis and the mouth of the Ottawa, of direct connection with the proposed Georgian Bay-Ottawa ship canal, partially surveyed by an incorporated company which is now financing it and which has been recommended for action by the Dominion Government by Minister Tarte of railways and canals. Such waterways, two sections of which are less than other ship canals existing in the world today, and the under water excavation from Troy to Coxsackie, to which point 30 feet extends in Hudson profile, is no more than has been done by our neighbors in Canada below Montreal to bring 30 feet to that point.

Such a route not only avoids the dangers of the lower St. Lawrence, but affords a way from Montreal to New York of about 350 miles, against 986 miles, by the Straits of Belle Isle. It will be safe navigation and being in a lower latitude will be a longer open season, of which we have charts for years, and it is the most direct route for South America, West India and Atlantic coast trades from Canada and the basin of the Great Lakes.

An appreciation of the trade possibilities and value of such commercial channels by us on this side of the border equal to that of our Canadian cousins, would insure the construction of such waterway and make New York the port of all America and of this great business within a decade.

BIDS FOR A LIGHT-SHIP.

Bids for the construction of a new steel light-ship to be stationed at Grosse Point, Lake St. Clair, were opened in the office of Inspector Wilson, of the Eleventh district, Detroit on Tuesday. Johnson Brothers, of Ferrysburg, Mich., were the lowest bidders, offering to do the work for \$14,840. The Jenks Ship Building Company Port Huron was the only other bidder, the figure being \$15,000 for a seventy-five-foot boat. The specifications call for a larger craft.

THE HEAVENS IN OCTOBER.

Astronomical data for October, 1901, furnished the MARINE RECORD by the Washburn Observatory: All the bright planets are situated in the evening sky the present month, and all are far south. Venus, the most brilliant of all, shines in the southwest as the evening star. In the same quarter are Mercury and Mars. The former reaches greatest elongation east on October 12th but will be situated too low to be easily seen. Jupiter and Saturn appear in the southerly sky. The former is by far the brighter of the two and is almost exactly on the meridian at sunset, on the first evening of the month. Saturn follows Jupiter in its diurnal course, some distance east and a little north of the latter planet.

The times of sunrise and sunset at Milwaukee for the month are as follows:

	SUNRISE.	SUNSET.
October 1.....	5:48.....	5:34.....
October 11.....	6:00.....	5:17.....
October 21.....	6:12.....	5:00.....
October 31.....	6:24.....	4:46.....

The times of the moon's phases are:

Third quarter.....	October 4.....	2:52 p. m.
New Moon.....	October 12.....	7:11 a. m.
First quarter.....	October 20.....	11:58 a. m.
Full Moon.....	October 27.....	9:06 a. m.

The principal fixed stars visible during month in the evening hours are: To the west: Vega and Altair. To the east: Aldebaran the Pleiades and Capella.

ST. LAWRENCE TO THE HUDSON.

The only sensible solution for the continental basin in which lie all the Great Lakes, not only for Canada, but ourselves, and to insure the commercial supremacy of New York, is a deep waterway from the St. Lawrence to the Hudson, writes John A. Wright in the New York Sun. By our effort we have now detailed surveys of such a waterway, which involves a route from the St. Lawrence (Lake St.

PHILIPPINE COMMERCE FOR PUGET SOUND.

It is believed by officials of the government in Washington city that if present conditions continue the great part of the expanding commerce of the United States with the Philippines will be carried on through the ports of Puget Sound. New York will probably rank second, and ahead of San Francisco. Although the importance of the acquisition of those islands from a commercial view-point was promptly recognized by the people of the Pacific Northwest, the extent of the Philippines commerce to be carried on by the way of Seattle and the other Sound ports, as compared with that carried through the other ports of the United States, was probably not foreseen.

The treasury department has prepared statistics, corrected for the last fiscal year, which show that during the period about 40 per cent. of all exports of the United States to the Philippines were shipped from the Puget Sound customs district. Yet this does not represent the actual extent of the business carried on with the Philippines through the Sound ports, for the treasury figures show \$198,645 worth of merchandise went from the customs district of North and South Dakota, and it is probable nearly all of this was shipped by way of Seattle or Tacoma. The Sound's exports to the islands in the fiscal year of 1901 were nearly double those from the next largest port, San Francisco, and approximately as large as those of all the other ports in the United States combined except San Francisco.

The total shipments from the United States were valued at \$2,647,449, of which \$1,055,828 were from Puget Sound and \$5,9382 from San Francisco. The balance was distributed as follows: Baltimore, \$14,110; New York, \$576,600; Norfolk and Portsmouth, Va., \$118,173; San Diego, \$56,621; Portland, Ore., \$20,429; North and South Dakota, \$198,645; Oswegatchie, N. Y., \$237, and other interior ports, \$413.

The exports from the United States to the Philippines in the fiscal year 1900, amounted to only \$404,193, of which \$42,555 were shipped from Puget Sound and \$143,831 from San Francisco. It is seen, therefore, while these exports increased more than twenty-fold on Puget Sound, the increase in other parts of the country was only five or six fold.

The shipments from the United States to the Philippines in July last amounted to \$830,809, and during the first seven months of the present calendar year to \$2,023,137. In July of last year the exports were valued at \$249,209, and during the first seven months of 1900 to \$1,592,030.

CONTRACTORS CONSOLIDATE.

Mr. Smith, a member of the firm of L. P. & J. A. Smith, contractors, of Cleveland, has been working for nearly a year to form a combination including all dredging concerns on the lakes, and he says that now everything has been closed up with the exception of a few minor details, which will not interfere in any way with the carrying out of his plan.

Mr. Smith said that the headquarters of the combine will be in Cleveland, and that all operations will be directed from that port. The capital stock of the consolidation will be about \$8,000,000.

On account of the great amount of work necessary to successfully carry out plans of the proportion involved in the formation of the dredging combine, and the highly satisfactory manner in which Mr. Smith has engineered them, securing all the options and planning all the details, it is considered almost certain that when the meeting of the representatives of the various companies is held in December, to close the business of the private firms and select officers for the trust, Mr. Smith will be chosen president and chief executive officer.



DULUTH-SUPERIOR.

Special Correspondence to the Marine Record.

The iron ore shipped from this district is ahead of last year by nearly half a million tons. The total to October shows 8,192,552 tons. For Minnesota alone the season shipments will doubtless aggregate 10,880,000 tons.

Vesselmen object to the exhibition of red lights on Minnesota Point unless shaded over the approach to the piers, so no action will probably be taken looking to an abatement of the nuisance. These private lights are not infrequently mistaken for regular beacon lights.

Messrs. York and Gooding, steamboat inspectors at Marquette, Mich., have reported that they have suspended the license of Capt. J. P. Foley, master of the Bon Voyage, until May 11th, 1902. The Bon Voyage was destroyed by fire in Lake Superior, and four passengers were lost. The decision of the inspectors implies that on the Bon Voyage the regulations relative to station drill and fire drill were not complied with.

John Stewart, second engineer of the Onoko, was taken to St. Luke's Hospital, Duluth, on Sunday night suffering from injuries received at the hands of some thieving tramps while on his way to his ship late in the evening. Masters and officers, spending the evening on shore, would do well to carry firearms for their protection in the lonelier parts of the docks, at this as well as other ports, as police officers can not be expected to patrol long stretches of dark silent dock property.

No doubt now remains regarding the loss of all hands through the foundering of the Hudson. The bodies of four of the crew who perished in the wreck have so far been recovered. The first one to be found was that of Sherman Brooks, the wheelman, which was picked up near Copper Harbor, two more, those of Donald Glass, one of the oilers, and Peter Leduc, the steward, found at Little Traverse Bay, and the last one found by the steamer Thomas Faint five miles north of Portage Entry on the east shore of Keweenaw Bay, that of George Vigt, the second engineer, who had sailed out of Buffalo for about forty years, and who was one of the oldest licensed men in active lake service.

Captain Joseph Kidd, when he returned from Bayfield, where he went to survey the wreck of the steamer Fedora for the insurance companies, reported that she was practically a total loss. The wreck lies about 250 feet from the shore, one-third of a mile from Red Cliff and above Chicago Creek. There is nothing of the burned boat above water except a little of the stern and a part of the boiler and engine. It is possible that there may be a little salvage on the boiler and engine. The former had dropped down into the hull and the latter was only partly visible above water, hence it was impossible to tell the exact condition of the machinery. The engine, so far as it could be seen, however, seemed to be in fair condition.

The report required by law was filed at the Marquette customs office this week in the case of the steamer Hudson, which foundered with all hands two miles off Eagle Harbor light on the forenoon of Monday the 16th. The vessel carried a crew of twenty-four and had no passengers. No assistance was rendered the disabled craft, the report says, and the cause of the disaster is stated as unknown. The Hudson carried a cargo of wheat and flax weighing 2,714 tons and valued at \$85,000. There was no deck load and the steamer was not overladen. The cargo was fully insured, and on the vessel, whose value is given as \$185,000, insurance aggregating \$150,000 was carried. The report was made out by General Manager Douglass, of the Western Transit Line, owner of the boat.

ACCORDING to the following from a Conneaut paper very fast work is done unloading ore in that port: "Work was commenced on the Harvard at 7 o'clock this morning by the clamshells. By noon the fast plant had her finished and at 3:30 she had cleared. This is a record in fast unloading that no other port on the lakes can equal. The Harvard carries close to 7,000 tons."

DETROIT.

Special Correspondence to the Marine Record.

The official number of the steel steamer Yosemite built by the Detroit Ship Building Co. is 27,682; tonnage 3,879 gross and 3,044 net.

Mrs. W. D. Ragan, Port Huron, wife of the lost owner of the barge Jupiter, has offered a reward of \$100 for the recovery of her husband's body.

The Lumber Carriers' Association does not seem to be very effective and their action or inaction regarding freight rates are hardly worthy of notice.

Capt. James H. Rogers, of the revenue cutter service and later in the life-saving service, died on Wednesday at the age of sixty years. He had been in failing health for several years.

Frank E. Kirby, who designed the steamer Hudson, does not believe the machinery of the boat gave out, but his opinion is that an extra strong sea swept over the bow and crushed in her pilot house, tearing away the steering gear, throwing the boat into the trough of the sea.

Frank D. Jenks, of Port Huron, says that work will begin at once on the erection of a steel elevator for the Grand Trunk Railway Company at Point Edward. The brick and stone for the foundation are already on the grounds. The work will be rushed on account of the burning of the wooden elevator last week.

The last raft of logs to be imported entered Saginaw Bay a few weeks since, and hereafter all will be cut on the Canadian side. Among the Michigan firms operating mills on the Georgian Bay, Holland & Graves Lumber Co. of Byng Inlet will stock about 40,000,000 feet of logs this winter; McArthur & Co., Little Current, 30,000,000; Eddy Bros., Blind River, 25,000,000; Moulthrop Lumber Co., John Island, about the same, and the Spanish River Lumber Co. of Spanish Mills about 20,000,000.

The Penberthy Injector Co. report an unusually heavy season's business. They have been compelled to put in considerable additional machinery, and are at present arranging to put in ten new lathes to meet the increasing demand for their goods. They now have on their market in addition to their well known and deservedly popular injectors a complete line of oil and grease cups, water gauges, etc., and are just entering upon the manufacture of a low water alarm, and a force feed lubricator.

A formal investigation of the charges against Capt. Haney of the steamer Buell by the survivors of the lost barge Jupiter has been asked by C. T. Westcott, supervising inspector of steamboats. The charges were made by Capt. Hansen, of the Jupiter in a letter to the supervising inspector, in which Hansen reiterates the charges that the Buell abandoned the Jupiter, instead of rescuing the crew, who were in the most serious danger. The charges have been sent to the steamboat inspectors at Port Huron, with instructions to make an investigation if they deem one advisable.

As the new steamer Steinbrenner, launched at the yards of the Jenks Ship Building Co., Port Huron, on Saturday, is about 50-foot beam, it will be necessary to again remove a portion of Military street bridge to allow the boat to pass through the draw. The effect will be to weaken the structure. For a time the Rapid Railway cars would not run over the bridge until it had been strengthened. Another proposition must also be faced by the Port Huron council. In case the Jenks people should receive contract to construct a car-ferry boat, which has been talked, it would be necessary to remove several of the bridges to allow the passage of such a boat.

Supervising Inspector of Steamboats Westcott has received a report from the local inspector at Marquette saying that they have suspended the license of Capt. J. R. Foley, late master of the steamer Bon Voyage, which was destroyed by fire near Portage Lake ship canal, May 10th. In the burning of the Bon Voyage four members of the Altman family were drowned in seeking safety from the flames. The inspectors based their ruling on the section of the steamboat laws which makes it necessary for captains to have station bills for life-boats and fire drills posted in their boats and to exercise the crew at least once a week in fire and life-boat drill.

The recent detention of a large fleet at the mouth of the Detroit river on account of low water on the Lime Kiln Crossings has again revived the talk of devising some plan whereby this delay and the attendant loss and annoyance to vessel owners may be avoided and an unfailing depth of water maintained. In this connection F. A. Kirby, formerly superintendent of the Wyandotte shipyards and brother of

designer Frank E. Kirby, of the Detroit Ship Building Company, reiterates his project of building a movable dam or dyke across the river at a point running from Bois Blanc to Sugar Island and Gross Isle, and from the west side of Gross Isle to the American shore, just below Slocum's Island. By means of this plan Mr. Kirby says that a uniform depth of twenty or even twenty-two feet may be maintained, and that there need be no further doubt as to the water level over this most dangerous point on the lakes, should this plan be approved by the next Congress and an appropriation made sufficiently large to carry it through to completion.

The Donnelly Contracting Co. proposes to test Deputy Collector Smith's ruling, that limestone from the Limekiln Crossing for use in the American breakwaters is dutiable. The raft-towing tug Mocking Bird, belonging to Capt. James Davidson, and manned by Capt. Riley Burington, passed down under contract with the Donnelly company to tow scows of Limekiln rock from the channel to Ashtabula to be used in the breakwater there. It is probable that when the rock reaches Ashtabula the custom authorities will attempt to collect duty. Supt. Wilson Skinner, of the company, doesn't believe duty can be collected. He claimed that no duty was charged on Canadian Stone used in the Buffalo breakwater. He contends that the stone to be taken for Ashtabula is really from an American channel, as the American government has practically control of the Limekiln Crossing, and, that furthermore, the stone is not to be brought ashore, but left out in the lake. On the other hand, Deputy Collector Smith is positive that the stone is dutiable, just as long as it is to be used for any American work. If the decision goes against the company it would not pay them to haul the stone at all.

CLEVELAND.

Special Correspondence to The Marine Record.

The steamer M. M. Drake and consort Michigan from Duluth to Lake Erie with ore foundered on Lake Superior on Wednesday, no lives lost.

Mr. John A. Donaldson, who resigned his position as general dock manager for the Pittsburgh Coal Co., will remain with the trust until Nov. 1.

At a meeting of the directors of the American Ship Building Company held here yesterday, a quarterly dividend of 1 1/4 per cent. payable Oct. 15, was declared on the preferred stock. Mr. W. L. Brown of Chicago, president of the company, and Mr. A. B. Wolvin of Duluth, attended the meeting.

During the time of the waterworks crib disaster in Cleveland harbor, Manager Brogan, of the Great Lakes Towing Co., allowed the tug William Maytham, which has no license to carry passengers, to take newspaper men and rescuers to the scene and was fined \$500 by the Treasury Department. An appeal was taken and the department remitted the full amount of the penalty.

Capt. John Haney denies the story of Capt. Hansen that his boat, the F. R. Buell, deserted the lost steamer Jupiter's crew after they had asked for assistance. Capt. Haney says he went out of his way to render the crew any aid they might need. "I argued with them about taking them off," he said, "but they would not agree to that. They wanted me to tow them to Sand Beach, which I could not do, as my own boat was in bad shape."

The following meteorological observations are furnished by the office of the U. S. Weather Bureau, for the week ending October 2nd: Prevailing wind directions during the week, south-east; highest velocity, 34 miles from north-west on October 2nd; mean temperature for the week, 63; highest temperature, 78 on September 26th; lowest, 50 on October 5th; sunrise and sunset data computed for local time at Cleveland, October 4th: sun rises, 6:01; sets, 5:37; October 7th sun rises, 6:04; sets, 5:32; October 10th sun rises, 6:07; sets, 5:28.

The main bridge of the Big Four Railroad over the river sagged on Monday, and the two ends resting heavily on the abutments made it impossible to swing the draw. The river was blocked for several hours, when temporary repairs were made and the draw was opened. After that there came a rush of boats both ways. This is the bridge which next week is to be replaced by the opening of the Scherzer roller lift bridge. The old bridge has been settling gradually for several months. This being noticed brought about the determination of the Big Four Railroad to replace it with a modern structure.

BUFFALO.*Special Correspondence to The Marine Record.*

Coal shipments were brisk last week at the old rates. Chicago, Duluth-Superior and Milwaukee took 40,000, 30,000 and 20,000 tons respectively, in the order named.

A master remains to be selected for the new Western line steamer Chicago. The late Capt. Angus McDonald of the lost steamer Hudson had been chosen to take charge of her.

About twenty vessels have been withdrawn this month from the Inland Lloyd's Vessel Register. The list includes two steamers, six schooners and several barges, or old wooden schooners.

One of the largest grain cargoes coming to the port of Buffalo this season was brought in by the new freighter George W. Peavey. It consisted of 250,000 bushels of wheat, the net weight being 7,500 tons.

The latest body to be washed ashore from the Hudson wreck is described in a telegram to the Buffalo headquarters of the Western Transit Co. as follows: Body has auburn hair, no hair on face; 5 feet 8 inches high; 150 pounds; no marks or papers; nothing in pockets but razor. Body has been buried.

It is understood that the new tug line has promises for plenty of work along the Great Lakes, and especially in this port. Considerable interest is evinced in shipping circles as to what boats will bestow their patronage upon the independent line in the fact of the trust's magnitude and importance. Interest also centers in the way the trust will receive its opponent, and in the measures it will probably take in a competitive way.

The steamer Nicol, which was in the same storm on Lake Superior in which the Hudson foundered, was dry docked this week for repairs. The Nicol passed the Hudson so that her crew could see the crew of the Hudson clinging to the sides of the boat. That the storm was severe is proven by the condition of this steamer which succeeded in weathering the gale. Her arches were strained, and in fact the hull showed such distress that it will be necessary to make extensive repairs on her, besides recalking.

The steamer City of Genoa, Duluth to Buffalo with grain, took fire when about 30 miles off this port. After several hours of hard work the crew got the fire under, but not until the hull had been damaged to the extent of about \$10,000. It is also expected that her cargo is badly damaged. This casualty will probably cause the loss of the balance of the season to the City of Genoa. She is a wooden boat, built at W. Bay City in 1892, owned by Gilchrist & Co. and rated A1* with an insurance valuation of \$82,000.

The new lake survey charts of Buffalo harbor and Niagara river harbors of Erie, Cleveland, Toledo, Duluth and Detroit river, together with the latest additions of all other lake survey charts, are on sale at the office of Maj. T. W. Symons, United States engineer, room 540, new Federal building, Buffalo. The new chart of Detroit river is especially valuable to mariners, it having the difficult portion of the river by Bois Blanc Island, the Lime Kiln Crossing, etc., shown on a large scale, in addition to the general map of the river.

CHICAGO.*Special Correspondence to The Marine Record.*

Officials of the Barry Bros.' line have recently been in conference with leading business men of Two Rivers, Wis., with a view to establishing business with that port next season. It is understood that the company contemplates making Two Rivers one of the regular stopping places on its extended line.

The following meteorological observations are furnished by the office of the U. S. Weather Bureau, for the week ending Oct. 2. Prevailing wind directions during the week S; highest velocity 40, S. W. Oct. 1st. Mean temperature for the week, 68; highest temperature 85 on Oct. 1; lowest 49 on Oct. 2.

The name of Harry Pederson, master of the steamer Northtown, appears on the records of Judge Grosscup's court at this port in an unusual manner. Pederson turned over to the Federal Court \$5.25, wages due Fred Tscherny, porter, who deserted the vessel at Hamburg. The money goes into the marine hospital fund.

The F. B. Wells, last of the four Peavey steamers to be built this season, will be launched Saturday afternoon at South Chicago. The Wells is 450 feet long, 50 feet beam and 28½ feet depth of hold. The F. T. Heffelfinger, launched some time ago at the same yard, will be ready for service before the sister ship slides down the ways.

Capt. John Fisher, of the steamer Syracuse, of the Western Transit Line, was taken seriously ill on Lake Michigan on the steamer's last trip, and was removed to the Marine Hospital here. Wednesday last he was taken to Buffalo by rail and is now confined to his home. During the illness of Capt. Fisher, first mate Henry Holmberg is sailing the Syracuse.

Capt. Michael Fitzgerald, after a service of 60 years as a lake navigator, has resigned the command of the steamer George G. Hadley, and will retire to live on land the rest of his days. He will be succeeded in the Hadley by Capt. Fred Hart, of Detroit. Capt. Fitzgerald began service on the lakes in 1841, sailing on a small schooner carrying wood to Mackinac Island.

Capt. James A. Calbick has been elected president and George L. McCurdy secretary and treasurer, of the Great Lakes Sailor's Snug Harbor, which has established headquarters at Chicago. They will care for any subscriptions that may be made towards the founding and maintenance of a home for sailors of the Great Lakes, a matter that was discussed at the last annual meeting of the Lake Carriers' Association and heartily endorsed by the Shipmasters' Association.

Major J. G. Warren, United States Engineer, in charge of harbor improvements on the west shore of Lake Michigan and in Green Bay, asks masters of steamers to slow down in running between the two revetments at Grassy Island, Green Bay, until the work on the east one is completed. Major Warren says men working there on the rafts are greatly inconvenienced and placed in danger of losing their lives by the waves caused by steamers running between the revetments at ordinary speed.

Capt. John F. Councer, one of the pioneers among the lake captains, died at his home, Indiana street, on Tuesday. Captain Councer was seventy-six years old but had not sailed vessels for the past twelve years. He marched in the Chicago parade the day President McKinley was buried and caught a cold. This, added to the effect of a fall which he had sustained several days before, proved too much for his strength and he grew worse until he passed away. He leaves a widow and two children. Captain Councer began sailing when a boy. Coming to the lakes when the schooner fleet was doing the carrying business, he had charge of some of the best vessels, among them being the Orkney Lass, Margaret Drayton, Gertrude, Sunrise, and Skylark, the latter being his last command.

FLOTSAM, JETSAM AND LAGAN.

The constant procession of "big fellows" through Portage Lake these days is the strongest possible endorsement of the wisdom shown by the government in its improvement of the waterway across Keweenaw Point. The Daily Mining Gazette, Houghton, Mich., says: "More carriers of the largest lake type have passed through Portage Lake in the past two weeks than ever before in a similar length of time."

A curious coincidence brought to mind by the launch of the new Western liner Chicago is that the steamer Idaho, which foundered a few years ago, was the thirteenth boat of the line; the steamer Albany, which foundered the following year, was the thirteenth boat and the steamer Hudson, which foundered last week, was the thirteenth boat, and now it is stated that the new steamer will be the thirteenth boat also.

Fines of \$200 each have been imposed upon the steamers Parks Foster and Ira H. Owens, by Collector of Customs C. B. Roberts for violation of the customs regulations. The Foster cleared from Sheboygan to Buffalo taking out papers for 103,000 bushels of corn and loaded her cargo at Milwaukee for Buffalo. The Owen took out a clearance at Manitowoc, specifying a cargo of 105,000 bushels of corn for Buffalo and also loaded at Milwaukee.

A million dollar shipbuilding plant which will be owned jointly by the Trigg Co., of Richmond, a big shipbuilding firm of Philadelphia, and another plant of Bath, Me., which constructs sailing vessels, is about to be established at Norfolk, Va. The Trigg Co. will not move its entire plant to Norfolk on account of financial arrangements in Richmond. It will, however, give the Norfolk plant all of its docking work. It is reported that the company of Philadelphia interested is none other than the Cramps and the Sewalls are the Bath people in the deal. The site of the plant is within the city limits just adjoining old Fort Norfolk. Thirty acres have been purchased at a cost of \$50,000 and options are held on 150 acres more. All the contracts for building the plant have been made and the contractors have let sub-contracts.

A COLLISION CLAIM.

The Huron Barge Co., of Cleveland, Ohio, filed papers in a libel action in admiralty against the steamer Northern Queen, of the Northern Steamship Co., in the United States District Court.

The sum of \$126,500 is asked for the sinking of the Huron Barge Co.'s whaleback barge Sagamore off Point Iroquois, at the lower end of Lake Superior, on July 29, 1901. The Sagamore was loaded with iron ore from Two Harbors, Minn., to a Lake Erie port, and during the night, on account of a dense fog prevailing, had anchored beside her tow, the Pathfinder, and was sounding her fog signal when the Northern Queen crashed into her proceeding at the rate of from ten to fourteen miles an hour.

The Sagamore sank rapidly, bearing two of her crew to a watery grave, and the colliding vessel, it is alleged, passed on without offering assistance or inquiring name of the stricken vessel. The Huron Barge Co. wants \$100,000 for the barge, \$15,000 for the loss of its charter to carry iron ore throughout the season, \$6,895.80 for a cargo of 3,851 tons of ore; \$3,064.80 for freight on same; \$600 for money spent in efforts to save the barge, and \$500 for personal effects lost by the crew. No mention is made of damages for the lives of the drowned seamen. Messrs. Hoyt, Dustin & Kelly of Cleveland are proctors for the libellants.

LETTERS AT DETROIT MARINE POST OFFICE

OCTOBER 2, 1901.

To get any of these letters, addressees or their authorized agents will apply at the general delivery window or write to the postmaster at Detroit, calling for "advertised" matter, giving the date of this list and paying one cent.

Advertised matter is previously held one week awaiting delivery. It is held two weeks before it goes to the Dead Letter Office at Washington, D. C.

Abilgand, Robt., Quayle	Meyers, Jno. M., Pridgeon
Ager, James R., Presque Isle	McKenzie, Jno. A., Colgate
Armstrong, Clarence,	McIntosh, S. A., Rome
	Lockwood
Ashton, Fred, Jupiter	McCarty, Frank
Bennett, B. J., Amazon	McKenney, Gordon
Balfour, Wm., Keneemaw	Nilsen, Kirst, Marengo
Benning, Edwin, Pabst	Niles, Geo.
Bostwick, Murry, Ketchum	Neal, Roll
Becker, Simon, Vauralte	Poole, Harry, Glosgan
Barney, Richard	Pemberton, Wm.—2, Waldo
Buchanan, James	Pelham, Thos. W., Niagara
Brant, A., Elphicke	Phillips, Harry, Case
Bovaard, Chas.	Padden, Elmer
Bandlow, Louis, Martin	Parker, Wm.
Buchanan, Wm.	Roberts, Harry P.
Cockerill, Henry T.	Robinson, M. J.
Cussen, P. J., Krupp	Raymon, Joseph
Campbell, John	Rose, Albert, Hiawatha
Campbell, Duncan	Rowland, Wm. A., Colgate
Coffield, Peter, Samoa	Rushlow, Joseph, F. Brown,
Elser, W. G., Waldo	Shorran, Arthur, Boyce
Edson, Chas.	Smith, Wm.
Efing, Barney	Stoddart, W., Tioga
Fleming, Capt. J. J.	Sullivan, R. G.
Fox, Thomas, Fred Glover	Sadler, John
Henning, Mrs. Fred, Bangor	Schott, Max
Hastings, J. B., Westford	Scott, Ralph
Helmer, Arthur, Boyce	Stover, James
Hill, Arthur D.	Sanscrainte, L. P.
Hamilton, Geo. W., Gratwick	Tobin, Thos., Yukon
Hemenger, F. R.	Wilson, James, Knapp
Holcomb, Newell, Oliver	Williams, Mrs. F. B.
Hindle, Jno. W., Glasgow	Wilson, Leonard
Joyner, Frank, Iron Duke	Waring, Della, Monitor
Kiddle, A. A.—2	White, Wm.
Koch, Chas. R.	Wheatley, Alonzo, Havana
Lynn, P. G., Abyssinia	Whitesman, Chas., Lockwood
Loughway, Samuel	Watson, Harry, North Eastern
LeRoy, Thomas	Witherew, C. L., Flower
Lubansky, J. A.	Welch, E. A., North Town
Leonard, Geo. A., Rust	Ward, Thos. H.
Mitchell, Sonnie, Pioneer	
Morrison, Geo.	
Marshall, Jos.	
Munson, C. L.—3, F. Brown	
Meyers, Hugh, City	
	Marquette

F. B. DICKERSON, P. M.

THE Leyland Line has arranged with the Great Northern Railway Co. to keep its steamers running to Liverpool from Quebec until January, with the object that the lower St. Lawrence can be navigated six weeks longer than has been the practice, if not throughout the winter. There is said to be plenty of cargo to keep the vessels fully employed. But the question is up to the insurance companies, who usually close their policies November 15.

CANAL ROUTES.

George V. Wisner, Esq., Detroit, formerly a member of the United States Deep Waterways Commission, received a letter recently from Secretary Frank S. Gardiner, of the New York Board of Trade and Transportation, that indicates that New York is waking up to her interests in the question of cheaper transportation to tidewater for the products of the northwest. He requests Mr. Wisner to reply specifically to two questions. He asks: "Would the construction of the 21-foot canal give a voyage without transfer at any intermediate point, between the lakes and Europe?" and also, "Is the construction of a ship canal, on the lines indicated, a proposition which should be undertaken by the general government, as being desirable and beneficial to the people as a whole?" He adds:

"If a transfer would be necessary at New York, a ship canal would probably be regarded as of value to this port. The other question and broader one seems open to discussion."

Mr. Wisner, speaking of the subject of transfer at New York said:

"I have no doubt that New York would be a transfer point in case the proposed 21-foot canal was built. I doubt very much whether the construction of that canal would result in lines being built up direct from Duluth and Chicago to European or South American ports. The lake type of carrier is well adapted to the canal, but would hardly satisfy the requirements of ocean traffic. I believe it would be found economical to handle the commerce of the lakes and canal in the present lake carrier, and transfer to vessels of the ocean-going type at New York."

"The opening of the deep waterway would, I have no doubt, cause some shipment of goods past New York without breaking bulk, but only a small percentage. I believe by far the greater portion of the traffic of such a waterway would be domestic, and that the canal would make New York more than ever the distributing point for the products of the northwest."

"I have no doubt the construction of this waterway would prove beneficial to the whole people, and that if it is constructed at all, along the course projected for it by the Deep Waterway Commission, it will be built by the general government. I am inclined to believe, however, that it will never be built. I think private capital will take up the problem, and that a deep waterway will be constructed from the Great Lakes to New York along an entirely different route, namely, from Georgian Bay to Montreal, via Lake Nipissing and the Ottawa river, and from the St. Lawrence to New York via Lake Champlain and the Hudson."

Speaking further of the Canadian deep waterway project, Mr. Wisner, who is consulting engineer of the company, and who has been over the route recently, said:

"The estimates of cost have not been finished as yet. I think it would be safe to say that the Canadian 21-foot canal from Georgian Bay to Montreal would cost between \$70,000,000 and \$80,000,000 to construct. For purposes of comparison, say \$75,000,000. The United States Deep Waterway Commission determined that it would cost \$63,320,000 to construct a 21-foot canal from Lake Champlain to New York and I regard it as a safe estimate to put at \$15,000,000 as the cost of building a connecting link between the proposed Canadian canal and Lake Champlain, leaving the St. Lawrence from Lake St. Louis above the Lachine rapids, and reaching Lake Champlain at St. Johns, a distance of 25 miles across level country. This would make the total cost of a deep waterway from Duluth and Chicago to New York about \$135,000,000, as a maximum. This would be \$35,000,000 less than the long LaSalle-Lewiston-St. Lawrence-Lake Champlain route explored by the United States Deep Waterway Commission, and \$50,000,000 less than the preferable LaSalle-Lewiston-Oswego-Mohawk route recommended by the commission."

"It is to be noted that the expenditure of \$75,000,000 upon the Canadian project brings the products of the northwest to tidewater, at Montreal, a result which takes the expenditure of \$190,000,000 via Champlain and \$206,000,000 via the Mohawk to accomplish, by the routes recommended by the United States commission."

Mr. Wisner adds that he thinks the energy of the people promoting the Canadian canal is waking up the New York people, who wonder whether the supremacy of New York as the outlet of the foreign trade of the northwest is not seriously threatened. He says that the estimates for the Canadian waterway will probably be completed in another month, and the projectors of the enterprise will be able to

lay before the Canadian government a definite statement of cost that can be relied upon, the sum total being adequate to take care of all legal complications over existing water-power rights, and similar expenses, as well as the actual cost of construction. It has already been announced that the company intends to ask the Canadian government to guarantee the bonds of the company, so that they can be placed at 3 per cent. instead of 5 per cent. or some higher rate. This saving in interest is said to be necessary to the financial success of the enterprise.

MALICIOUS REPORTS.

Nothing can be in worse taste than premature and excitable reports of casualties to vessels. It is now said that the passenger lines have been annoyed lately by reports of disasters to their vessels being sent abroad when there was nothing in it. These reports recurred with such regularity that some of the agents have come to believe that evil intent is evidenced. A still hunt is therefore being made to find, if possible, where the reports emanate from, and if the source can be found proceedings to show malice will be started in the courts. Only a few days ago the report was started that the Buffalo boat had gone down, followed by the report that the Detroit steamer had been lost. The reports were senseless, as no possible conditions were even remotely apparent that would bring about such a disaster. Accidents of this sort occur so seldom—in fact, years have passed without one on the lake—that a report of this sort stirs up a great deal of excitement. The anxiety of those on shore for friends on the boat is naturally great, and the boat owners are constantly besieged at all hours for information, after one of these stories has been spread. The reports have been so persistent of late that the owners and officers believe that malice is behind them.

AN INDEPENDENT TUG LINE.

Opposition again looms up before the Great Lakes Tug Co., headed by L. S. Sullivan, Toledo, and backed by vessel owners.

The first active steps have been taken with the tugs Pallister and Frank S. Butler, at Buffalo. These are two of Mr. Sullivan's most powerful tugs, and have been given a thorough overhauling. The Butler has been on the dock for two weeks, and is fully prepared for ice work. The Pallister has also been overhauled and refitted.

The placing of these two tugs at Buffalo is only the beginning of the work of organized opposition to the big trust. Plans are already under consideration for the operation of a fleet at Cleveland.

Mr. Sullivan, before he took this step, it is asserted, had secured plenty of assurance of support from vessel owners.

At Buffalo, Mr. Sullivan's line will be known as the Independent Tug Company. It will be under the management of Capt. Louis Ladenslager. Capt. Ladenslager was manager for the trust for one year, and is fully acquainted with the methods of the organization. He was manager of the Hand-Johnson line for twenty years, and is one of the oldest and ablest tug men on the lakes.

Capt. Nash will be the master of the Butler. A Buffalo man will take the Pallister.

TREASURY DECISIONS.

STEAMERS TOWING VESSELS.

Steamers holding passenger certificate may lawfully engage in towing other vessels whether with passengers on board or not.

TREASURY DEPARTMENT, September 21, 1901.

SIR: The Department is in receipt of your letter of the 28th ultimo, calling its attention to the fact "that several of the passenger steamers are doing a towing business at the subports in this (your) district," and expressing an opinion that it is not lawful for passenger steamers to engage in towing "while carrying passengers for hire."

In reply, you are informed that, passenger certificates being the highest class of certificates issued to steam vessels, vessels holding such certificates may engage in towing or any other business that any steam vessel may lawfully engage in without regard to classification.

R-spectfully, O. L. SPAULDING, Acting Secretary.
COLLECTOR OF CUSTOMS, Honolulu, Hawaii.

Tipton (producing a bottle)—This is some stuff that Harry sent me just before he left for Europe. Gullip (sampling the same)—H'm! Seems to be something in this absent treatment, after all.—Boston Transcript.

ST. LAWRENCE CASUALTIES.

The Sydney Post says on the question of a fast Atlantic service, in the course of an article advocating Sydney as the summer port and Halifax the winter port, that "the St. Lawrence route has been the bane of Canada in regard to insurance rates, and underwriters refuse to reduce the rates until the St. Lawrence presents a cleaner bill of health. The Royal Society of Canada has worked out a concrete example, showing how these rates would effect a 20-knot service if established. The four steamers, it is pointed out, would be valued at £2,000,000, and by running to a St. Lawrence port they would be penalized to the extent of £125,000 to £160,000 per annum over and above the insurance charge paid if they ran to an American port."

We have before us a statement of the casualties in the river St. Lawrence below the port of Quebec for ten years, 1889 to 1898, during which time there was only one wreck, that of the *Metsola* on Cape Ray in 1889. The total number of casualties of all descriptions was 176, of which 91 vessels ran ashore, 2 struck rocks or reefs, 36 grounded, and 46, about 26 per cent. of the whole, were due to collisions. The record does not justify the evil reputation given to the St. Lawrence route. This year has been more prolific of serious disaster than any of the preceding ones, so far as wrecks are concerned, but it will be noted that the three steamers which have been wrecked have gone to grief at almost the same spot, *Renews*, on the Newfoundland shore, and that there is not the shadow of a reason for laying these disasters to the account of the St. Lawrence route proper. It is highly probable that for the reason our confrere points out, and others which will be readily understood, it would be next to impossible (at present, at any rate), to bring 20 or 24 knot steamers to Quebec, but it is not correct to say that the gulf and river route to Quebec is peculiarly dangerous. So far from it a brief inspection of the figures we have given will show what we have always contended, that the accidents are the result of carelessness or recklessness on the part of those who have the vessels in charge. Out of the 176 accidents recorded during the ten years three only can be unhesitatingly assigned to natural defects of the route, one wreck, one vessel that struck a rock, and one that struck on a reef; more than 50 per cent. of the vessels ran ashore, and more than 25 per cent. collided. The gulf and river are quite wide enough to render both running ashore and collision wholly unnecessary. The former might indeed be prevented if we could take away the shore on both sides, but it is quite impossible to prevent the latter if captains and pilots insist on it.

VESSELS CLASSED.

Vessels classed and rated this week by the American Bureau of Shipping, New York, in the "Record of American and Foreign Shipping," are as follows:

Steamer *El Dia*, screw Philadelphia, schooner Arthur Seitz, schooner *El Dorado*, schooner *Cassie F. Bronson*, schooner *Eva B. Douglass*, schooner *William H. Verkes*, three masted schooner *Charles K. Buckley*, three masted schooner *Emily I. White*, three masted schooner *W. H. Dix*, three masted schooner *Warren Adams*, and screw *Haverford*.

RIPARIAN RIGHTS.

The work on the sea wall being constructed by the Chicago and Northwestern Railway Company at Sheboygan, Wis., south of the government piers is being pushed rapidly ahead. The first 1,000 feet of piling was furnished last week and the sheet piling is now being put in. The 1,000 feet is all that will be furnished this season. Next season another 2,000 feet of wall will be built. The company will acquire about an acre of land by the improvement.

Collision—Action for damages to Tow—Master of Tug as Libelant.—The master of the tug is a common-law bailee of a tow and her cargo which are in his charge with a lien thereon for the towage services rendered, and as such he is entitled to maintain an action against another vessel for a collision in which his tow and her cargo are lost, and in such action to recover their full value, holding the amount remaining, after deducting his own loss, in trust for the owner. In such case the owners of the tow and cargo may intervene as co-libelants, if they desire, or the respondent may bring in the tug, under admiralty rule 59, by petition showing her to have been in fault, in which case a substitution of the owners of the tow and cargo as libelants is the proper course. The *Mercedes*, 108 Fed. Rep. (U. S.) 559.

NAUTICAL EDUCATION IN SCHOOLS OF COMMERCE.

Is a technical education in mechanics, seamanship, etc., merely advisable, or absolutely necessary, in the solution of, not every, but some legal puzzles involving them? Should the professor at law schools, schools of commerce, etc., who teaches the law of shipping and admiralty, have the experience of a seaman as well as of a lawyer?

The rather comical history of the attacks on naval court-martial sentences in civil courts, (which resemble the endeavors of a landlubber to boxhaul a ship,) suggests that the mingling of seafaring with legal knowledge might have made different annals. From the re-enacting, by the first American Congress in 1776 of the old Mutiny Acts of England, and until more than half the next century had passed, lawyers appear to have been wary of admirals' courts and to have regarded discretion as the better part of valor in meddling with them. No record can be found of any assault on their unknown bulwarks until so late as 1857. In 1857 a reckless attorney petitioned that a naval sentence be declared void by the U. S. Supreme Court on the ground that "Attempting to Desert", (of which his client, seaman Dynes, was convicted) was not comprised within the accusation of "Desertion" of which he was charged. The profound care given by the Supreme Court to seamen's interests was testified to in this case by the court's giving some twenty pages to show that in charging Dynes with "Desertion," i. e., "Attempting to desert and being successful in the attempt", he was charged with "Attempting to Desert" and could thus be convicted thereof. (Dynes v. Hoover, 20 How., 65-84).

In the next case, in 1879, Hon. Geo. S. Boutwell, cabinet officer and chief impeacher of President Andrew Johnson, could see no other semblance of defect in the court-martial sentence which he studied, than that a pay clerk in the navy was not in the navy and therefore not susceptible to trial by court-martial. The Supreme Court told Mr. Boutwell, with brevity, that he was. (Ex parte Reed, 100 U. S. 13). Next the distinguished Jeremiah Wilson, in 1885, had a fling at a naval court-martial and asked the Supreme Court to release, by habeas corpus, from imprisonment, a naval surgeon who was not in imprisonment. The Supreme Court told "Jere" that they could not do it. (Wales v. Whitney, 114 U. S. 564). The next naval unfortunate who appears in the court reports evidently argued to himself that a lawyer who could fasten a court-martial sentence on an "accused", could unfasten such; and so employed the successful prosecutor of Judge-Advocate-General Swaim, Jeff. Chandler with Gen. Eppa Hunton to help him. The two could think of no other plea for their client, a paymaster-general in the navy, than that he was not subject to court-martial for the manner in which he performed his official duties. The Supreme Court assured them that he was. (Smith v. Whitney, 116 U. S. 167).

Discouraged at the stupidity of the Supreme Court, the lawyers now turned their attention to the Court of Claims; and in 1888 Ex-Senator Eppa Hunton petitioned that court (for a captain dismissed on the charge of drunkenness and wrecking his ship) to deprive the Secretary of the Navy of the latter's right to order officers under him, to tell the Secretary, when the statute empowered the Secretary to decide whether to order five or thirteen officers to constitute a court-martial, that the Court of Claims would displace him thereafter in running the Navy. That Court told Gen. Hunton that when the law gives the Secretary a discretion the Court of Claims could not take it from him. (Mullan v. U. S., 23 Ct. of Cl., 36). One of the famous Blair family next flew into the alluring spider web of a naval court-martial, coming forward in 1889 with a request of the Court of Claims to set aside a sentence as being "uncertain", because the fine imposed by the sentence had only the mathematical certainty of an easy calculation. The request was denied. (Williams v. U. S. 24 Ct. of Cl., 311). In 1893 two Norfolk attorneys asked the Supreme Court to hold that Art. 43, sec. 1624 R. S. meant that a red handed murderer must be chased by a sheriff with formal charges and specifications made out, ready to "furnish him" therewith on the instant of his arrest, on the penalty of all trial and conviction of that murderer being prohibited. The Court did not agree with them. (Johnson v. Sayre, 158 U. S. 117).

In 1897 the chief justice of Boston's fashionable suburb of Brookline, argued a habeas corpus case in behalf of a Boston Navy Yard seaman. The hearing was in September 1897, and on the mysteries of the naval "articles;" and the result was an inability of the court to make up its mind until Dec. 31, 1897, when it decided that the seaman for whose imprisonment it had been responsible

from September until December, was legally imprisoned. The statutes require that a habeas corpus writ shall be returned in three days and a hearing had in five, and that such case shall be "decided summarily." The failure of the judge to decide this case for three months was charged to a less excusable incitement than intoxication produced by naval puzzles. The decision, however, contains no trace of his three months' researches. (In re Crain, 84 Fed. 788). Perhaps the main difficulty in this also was due to the bad sailing of the case and fouling of the gear under un-naautical hands. In 1901 came the first victory for a hundred years. It was won by an attorney who had been a graduate of the U. S. Naval Academy and a commissioned officer of the Navy. He had been a judge-advocate of naval courts-martial also. But it was rather to his seaman's experience that he attributed his success. As a seaman he knew of a certain custom on board ship, apparently having no reference to a certain statute, that, as a lawyer, he knew did magically disentangle the snarl of that theretofore interpreted statute. Had he been either seaman or lawyer alone he could not have brought together a nautical fact and a statute which seemed to have nothing in common, in the non-intersecting spheres of thought of either lawyer or seaman.

The case was prejudiced about as unfavorably as possible. Not only an opinion of the attorney general (19 Op. 476) but a decision of the Supreme Court itself (158 U. S. 117) was adverse to his contention. Nor was there any visible over-ruling of the Supreme Court's decision. But the clue of the nautical fact opened out a nautical history of which the opinion in 158 U. S. 117 had been utterly barren. Fortunately a subsequent decision came to seamen's rescue, securing them just trials by holding that a statute must be judicially interpreted in the light of its history. (169 U. S. 653: "In construing any act of legislatures, regard is to be had not only to all parts of any former act of the same law-making power, of which the act in question is an amendment; but also to the history of the law as previously existing.") A further dubious suggestion of the court in 158 U. S. 118 that a seaman might in effect commit suicide by consenting to be put to death although forbidden by court-martial law, was frowned down in the later Crain v. U. S. 162 U. S. 644. As might be expected, in nautical trials, whatever their errors of severity in other respects, the naval accused is not desired to be critical and suspicious of his superiors, but to accept all their doings with disciplined submission, and is thus protected against failure to "plead in bar" and to take smart "exceptions." Another nautical feature of this case and which would not have suggested itself to a lawyer not having a seaman's life fully in his mind, will be found analyzed at length in the N. Y. Maritime Register of Sept. 18, 1901, under the title of "Maritime Notice."

Against the array of able legal talent named in this article, and their presumable greater army of unnamed consultants, was marshaled, not law learning, for the Navy Department does not pretend to that, but the skillful illusions of seamanship, displayed by officials desirous of stretching their province of command to the utmost. Was the defect overlooked for a hundred years because microscopic? Or was it as visible to the eye of the seaman as a rope's end out of place? The Court of Claims answers: "To say now in the face of that statute that an officer or seaman in the navy can be arrested by his commanding officer, that he can be kept in close confinement for as long a time as General Stone was in 1862 without charges being preferred against him; that he can be carried to the other side of the world from the spot where the alleged offense was committed, and be first informed of it when the charges against him are read during the proceedings of the court-martial, would be to say that Congress had made no provision whatever for preserving the personal rights and liberties of the officers and men in the American Navy." Smith v. U. S. No. 21,636 Ct. of Cl. decided April 22, 1901.

GEORGE F. ORMSBY.

Washington, D. C.

INSPECTION OF STEAM VESSELS.

By a recent Order-in-Council all vessels engaged in carrying freight in the coasting trade of Canada, but registered elsewhere, shall have the provisions of the Steamboat Inspection Act of Canada applied to them. If such vessels have been inspected by a surveyor of the Imperial Board of Trade, the English Lloyd's, the Bureau Veritas, (French Lloyds), and the British Corporation for the Survey and Registration of Shipping, for the current year, they will not be required to be inspected by the Canadian inspectors for 12 months.

SHIPPING AND MARINE JUDICIAL DECISIONS.

(COLLABORATED SPECIALLY FOR THE MARINE RECORD.)

Authority of Secretary.—The secretary of an insurance company cannot bind the company for a loss which has occurred, but for which the company is not otherwise liable. Arguibau et al. vs. Germania Ins. Co., 30 So. Rep. (La.) 148.

Admiralty Jurisdiction—Nonresident Corporation.—A suit in admiralty, in personam, may be maintained against a corporation of another state in any district in which service may be had upon it. Reilly vs. Philadelphia & R. Ry. Co., 109 Fed. Rep. (U. S.) 349.

Collision—Ferryboat and Steamer in Tow—Insufficient Lookout.—A ferryboat crossing North river in the evening held solely in fault for a collision with a steamship coming up the river in tow and disabled, where both tug and tow carried appropriate lights, but, through the insufficiency of the ferryboat's lookout, she failed to see the lights of the steamship until shortly before collision, and to keep out of way, as she was bound to do, after receiving an alarm signal from the tug. The Bergen, 108 Fed. Rep. (U. S.) 555.

Acceptance of Risk.—The fact that a clerk in the office of respondent, whose duty it was as a matter of routine, had received the slip sent by libelant reporting such risk, and had filled in the premium and checked the same for entry in the books, did not constitute an acceptance of such risk by respondent, where the clerk had no authority to accept or enter risks when any facts were known which rendered them unusual, and where prompt notice was given to libelant of its rejection. Delaware Ins. Co. of Philadelphia vs. S. S. White Dental Mfg. Co., 109 Fed. Rep. (U. S.) 334.

Navigation Laws.—Forfeiture of Foreign Vessel.—Where a British vessel sailed from the island of Margarita to Jamaica, which, by the ordinary laws of navigation is closed against vessels owned by citizens of the United States, and the captain landed there, and brought out passengers, and came to an American port, she is forfeited under the navigation laws providing that any vessel owned by British subjects, coming or arriving from any port or place in a British colony closed against the United States, shall be subject to forfeiture, though the vessel did not enter the port in Jamaica, but stood off and on while the captain was on shore. The Francis & Eliza, 108 Fed. Rep., (U. S.) 541.

Collision—Dredge at Anchor—Misleading Light.—A dredge anchored in the East river, while at work, besides her staff light carried another white light considerably lower down not required by the rules, and which was mistaken by a tug coming up the river with a tow in the evening, the two lights being similar to those customarily carried by a tug in motion, but without a tow, the lower being visible only astern. The tug did not discover the mistake until within 300 feet, and her tow came into collision with the dredge, and injured it. Held, that both were in fault, the dredge for carrying a misleading light, and the tug in not sooner discovering that the dredge was stationary. The Arthur, 108 Fed. Rep. (U. S.) 557.

Towage—Liability of Tug for Injury to Tow—Wrongful Assumption of Authority by Master.—A tug was engaged to perform towage services by the master of a barkentine which lay at the foot of a slip in which a number of other vessels were moored. The owner of the tug refused to take the tow from inside the slip, and the master of the latter agreed to deliver her at its mouth. When the tug arrived, however, the barkentine had not been brought out of the slip, and the master of the tug gratuitously undertook to bring her out. The undertaking was dangerous, and was not executed with proper care on part of either vessel, in consequence of which the barkentine came in collision with another vessel in the slip, and was injured. Held, that after the refusal of the owner of the tug to undertake the service, which was known to the masters of both vessels, the master of the tug had no authority to bind her, or to subject her to liability, by wrongfully undertaking it, and that the maneuver was therefore at the sole risk of the tow. The Andrews J. White, 108 Fed. Rep. (U. S.) 685.

Parol Evidence—Varying Written Contract.—Where suit is brought upon a policy of marine insurance which has a printed condition or warranty attached upon the face of it, and it is claimed by the plaintiff that such condition or warranty was eliminated when the contract was made, by reason of a verbal statement of the agent of the company to the effect that the company would give no trouble about it, but the condition was nevertheless allowed to remain in the contract, to the knowledge of the assured, who fully understood its meaning and legitimate effect, testimony going to show such verbal statement should be excluded on the objection that it tends to vary and contradict a written instrument. It is not a question, in such a case, of the authority of the agent, but a question of the right of a party to the contract which has been reduced to writing, without attempting to reform such contract, and without charging error or fraud, to substitute in place thereof a verbal agreement of which the written contract, with some of its provisions eliminated, is said to be a part. Arguibau et al. vs. Germania Ins. Co., 30 So. Rep. (La.) 148.



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CLEVELAND, O., OCTOBER 3, 1901.

DISABLED VESSEL—RESCUING LIVES.

There seems to be an impression prevailing in lake marine circles that a passing vessel is bound to take care of anything disabled which she may come across irrespective of weather conditions or other considerations. This feature has been brought prominently to the front during the past week or two, within which, at least two shipmasters have been morally censured for not taking unwilling passengers aboard their craft.

It should be clearly understood that salving floating property is clearly at the option of the passing vessel, which, after all, resolves itself according to the judgment of the man in charge. On the other hand, the question of rescuing lives must be placed on a broad, humanitarian basis, calling for the exercise of all the skill known to the craft and risks second only to the probable loss of life in rescuing other lives.

Conditions may, and often do, present themselves, where it is simple foolhardiness and stupidity to attempt to rescue even life, much less to act the part of salvors. A shipmaster should be guided by his best possible experience as well as that of others, in making well-advised, strenuous and supreme efforts to alleviate distress, but it is not advisable to risk life against life, or sacrifice a number in an abortive attempt to rescue.

The men temporarily under a ban may rest assured that the better judgment will eventually prevail and the first law of nature be still held in good repute.

The waters of the earth gives daily evidence of brave, heroic acts performed thereon. Sailors, like the very poor, will give their all to those in dire distress and trust in providence to carry them through at a later period. The only question that can ever arise may be solved by the query, Was, or is, the action, or inaction, well advised?

POINT PELEE PASSAGE.

Commander Andrew Dunlap, U. S. N., inspector of the 10th Light House District, stationed at Buffalo, joins with Major T. W. Symons, Corps of Engineers, U. S. A., engineer of the same district in desiring an expression of opinion from the sailing fraternity regarding the best aid to navigation and pilotage to be placed on South East Shoal, Point au Pelee Passage, Lake Erie.

It is desirous to learn whether a light-ship or light-house at that point would best subserve the interests of lake commerce, and we hope that in the multiplicity of counsel there will be wisdom found to further the establishment of the best aid necessary in the locality. To this end we ask that lake shipmasters and pilots promptly correspond with the government officials at Buffalo.

LIGHT-HOUSE OR LIGHT-SHIP.

The Lake Carriers' Association has written to the Light-House Board asking for an investigation of the necessity of a light-house or light-ship on the Southeast Shoal, Point au Pelee Passage, Lake Erie, and the letter has been referred to Major T. W. Symons, Engineer, and Commander Andrew Dunlap, Inspector of the 10th Light House District at Buffalo, New York, for investigation and report.

The letter is written with the hope that during the coming session of Congress money may be appropriated for the erection of the needed aid to navigation.

The officers making the investigation are very desirous of receiving any information bearing upon the subject, and as well, the views of mariners and people interested in the navigation through this passage, as to which is preferable, a light-house or a light-ship. Any communication addressed to either one of the officers named bearing upon this subject will be gladly received and noted.

THE U. S. CRUISER CLEVELAND.

The U. S. cruiser Cleveland, launched on Saturday last at Bath, Me., and christened by the daughter of the junior Senator from Ohio, was appropriately named for the chief city on Lake Erie.

We publish particulars of construction, equipment, etc. in this issue and it now remains for the municipality of Cleveland to present a fitting tribute to its namesake so that the prestige of name and fame may be worthily borne over the seas which unite all nations.

MEXICAN-UNITED STATES STEAMSHIP LINE.

Consul Kindrick, of Ciudad Juarez, transmits the terms of a concession granted for a new steamship line to run between Mexico and United States ports, in which the following are the chief clauses: The Atlantic and Mexican Gulf Steamships Co., to conduct a service of steam navigation between Mobile, Pensacola, or some other Atlantic port of the United States and one or more Mexican Gulf ports, its steamers making at least two round trips every month. When the service or traffic demands it, the company may, after presentation of the sailing schedule to the department of communications and public works for its approval, increase the number of trips, steamers, and ports of call; with the understanding that the additional steamers must be the company's property, or chartered by it for a period for at least six months.

LAKE FREIGHTS.

Iron ore rates advanced 10 cents from the head of Lake Superior and marked the first change in freights for the season. Vessels fixed ahead are carrying ore at former rates, but better figures are looked for at the expiration of charters. Marquette offered 75 cents, an advance of 5 cents; Escanaba at former quotations.

Coal rates show an advance of 10 cents from Lake Erie to Chicago, and 70 cents was paid from Buffalo to the South Branch, Chicago, also Racine, with charterers after tonnage and vessels holding firm for better rates. Erie to Milwaukee, 60 cents; Lake Superior rate unchanged.

Lumber carriers are in great demand at Lake Superior ports, with some charters having been made at \$2.75, an advance of twenty-five cents. Other owners are holding for \$3. It looks as if they would have to content themselves with the \$2.75 rate for a while. The grain movement has hardly started yet, and the 2½ cent rate holds firm.

Lumber rates advanced from \$2.50 to \$2.75 from the head of the lakes and a likely advance of another 25 cents by the end of the week. It would appear that future charters will not be fixed at less than \$3 and a still better rate of 25 cents will be paid towards the close of lumber carrying.

Grain rates from Chicago advanced ½ cent during the week, but are again quoted at 1½ cents on wheat and 1¼ on corn to Lake Erie ports. Duluth and Fort William 2½ cents on wheat to Buffalo, with ¼ cent offered for later loading this month and on mixed cargoes immediate loading. This is a little better than 90 cents on ore. On October 1 rail rates on grain from Buffalo to New York go up as follows: Corn, from 3½ to 4 cents; wheat, 3¾ to 4½ cents.

The ice crusher Algoma, used last year in Green Bay, Mich., has been sold to Mr. F. H. Clergue, of Sault Ste. Marie, Ont., and will be used this winter in endeavoring to keep a channel open between Montreal and the Gulf of St. Lawrence for at least a little later than formerly.

THE SET AND DRIFT OF OCEAN CURRENTS.

The Hydrographic Office, Bureau of Equipment, Navy Department, persistently follow up the set and drift of ocean currents and by this means seek to establish the economy and laws of the rotation or movement of the seas in all latitudes.

The work has now reached such proportions that results may be considered conclusive and we may look for the issuance of a current chart of the world at no distant date.

The entire work has been carried on chiefly by floating bottle papers, although the set and drift of derelicts and other flotsam has been duly and carefully tabulated in all instances, and especially so in the North Atlantic.

The general rules observed in determining the motion of surface waters, is to place on board ship a number of bottles containing printed slips. The vessels are asked to note carefully the latitude and longitude of the location where they were cast adrift, and the ship that picks them up is asked to note carefully the position of the place where they were picked up, and to estimate the probable distance they have traveled. In this the co-operation of the Russian government has been secured; instructions have been issued to each hydrographic office to report any bottles picked up at sea by a ship of any other nationality, and the mercantile and naval marine of both countries are expected to note the locality of these official bottles, and after observing the original place they started from to allow them to proceed on their way, after adding their quota of information and resealing the silent recorders.

The velocity of the daily drift varies considerably; in a recent current chart published by the department the average of the seventy bottles which landed on the coast of Europe was five miles; those thrown overboard in the north equatorial drift averaged 10.8 miles a day, and those traveling along the north coast of South America averaged 21 miles. The most remarkable drift of all was that of a bottle that went seventy miles in two days, or at the rate of 35 miles a day; while another traveled 200 miles in eight days, at the rate of 25.8 miles a day, and still another 3,100 miles in 164 days, at the rate of ten miles a day. This last was the quickest drift for long distance of any bottle reported.

Long distance drifting is naturally in the Pacific Ocean. A bottle thrown over from the Rockhurst in March, 1897, drifted 742 days before its wanderings came to a close, and in that period had covered in a direct line 8,100 miles, the distance from San Francisco to China. Its average rate was 2.9 knots per day. Another bottle thrown overboard on October 10, 1896, and reported June 24, 1899, had traveled at the rate of 7.7 knots a day, over 7,600 miles; and still another is reported after a voyage of fourteen months, as having covered a distance of 5,200 miles at the rate of 12.3 knots a day.

"The main features indicated in the drift are that bottles thrown into the sea near the equatorial and trade wind regions trend to the westward and usually bring up in the West Indies or on the Mexican coast, as evidenced by the numerous bottles cast adrift between Madeira and Cape San Roque, off the coast of Brazil. Along the American coast and north of the 40th parallel these conditions are reversed. Here the general set of the waters is to the northward and eastward, and bottles put into the sea in that region usually find their way to the north coast of Ireland, or even farther north. This is unquestionably due to the influence of the Gulf stream, which takes an easterly and northerly direction after spreading out in mid-ocean. Here, too, the velocity is much less than in the equatorial regions."

The experiments thus conducted doubtless have important results from a scientific point of view, and prove an invaluable source of information to the navigator. The particulars gained from all sources of observation are embodied in the Atlantic and Pacific pilot charts issued monthly by the Hydrographic Office.

The second competition for the Anthony Pollock prize of \$20,000, founded in memory of the Bourgogne disaster, showing 328 competitors of all nationalities, and the jury began at once to examine the different classes of inventions to prevent collisions at sea to save the ship in the event of collision and to save the crew and passengers in case the ship be lost. Among the more peculiar inventions was a Mayo life-boat of cylindrical form with an elongated barrel and a hanging floor inside, which holds 50 people. Another one is to facilitate the launching of a boat in a fog. It has a kind of torpedo, which remains in connection with the ship and signals when it comes in contact with anything.

THE U. S. CRUISER "CLEVELAND."

The launch of the U. S. cruiser Cleveland from the ways at the Bath Iron Works, Bath, Me., took place on Saturday last. The cruiser was christened by Miss Ruth Hanna, accompanied by her father, Senator M. A. Hanna, and delegates from the Cleveland Chamber of Commerce, Senators Frye and Hale, Representative Littlefield and Governor Hill and staff. After the launching a lunch was served in their honor.

While in Bath the visitors were the guests of the company, but on Saturday evening a public reception was given them under the auspices of the Board of Trade.

The Cleveland is one of six sheathed protected cruisers, the construction of which was authorized by an act of Congress, approved March 3, 1899, the other five being the Denver, Des Moines, Chattanooga, Galveston and Tacoma.

The principal dimensions are as follows: Length on water line, 292 ft.; over all length, 308 ft. 9 in.; beam molded, 43 ft. 3 1/4 in.; beam extreme, 44 ft.; freeboard forward, 20 ft.; freeboard aft, 18 ft. 6 in.; freeboard amidships, 15 ft. 9 in.; mean draught in normal condition, 15 ft. 9 in.; corresponding displacement, 3,200 tons; speed required to contract, 16 1/2 knots.

A remarkable feature about the vessels of the Cleveland class is the large displacement adopted, Congress having allowed for vessels of the Detroit class, but the Naval Board added about 900 tons, which has taken them out of the gunboat class and made them full-fledged seagoing fighting ships. Another important thing in connection with the Cleveland and her five sister ships is the idea of sheathing the bottoms with hard pine covered with copper to prevent the rapid growth of weeds and barnacles which so sadly reduce a vessel's speed, especially in tropical waters.

She will be equipped with two vertical inverted, 4-cylinder, triple-expansion engines, developing 4,500 h. p. There are six water tube boilers tested for a working pressure of 275 pounds. The total grate surface will be about 13,000 square feet, and the total heating surface about 13,000 square feet. There will be two smoke stacks, the top of each being 70 feet above the grates. The coal capacity of this ship with bunkers full (700 tons) is sufficient to give her a radius of action at full speed of about 2,600 miles. At the most economical rate of steaming, probably in the neighborhood of 10 knots an hour, she will be able to steam without re-coaling from San Francisco to Manila.

The armament will be as follows: Main battery, ten 5-in. rapid-fire guns; auxiliary battery, eight 6-pounder rapid-fire guns, two one-pounder rapid-fire guns and four Colt's machine guns. The sail area will be about 6,000 square feet. The guns will be designed for smokeless powder and the 5-in guns will be more effective than the old type of 6-in. guns. Eight of them will be mounted on the main deck in recessed ports, the four forward ones having a range from right forward to 60 degrees abaft the beam, and the four after ones from right aft to 60 degrees before the beam. The two remaining 5-in. guns will be mounted behind shields, on the spar deck, one forward and one aft. Four 6-pounders will be mounted on the main deck, and the Colt machine guns on the top of the hammock berthing.

The ammunition supply will be large, as it should be, to make rapid-fire guns effective. For each of the 5-inch guns it will carry 250 rounds and for each of the 6-pounders 500 rounds.

The wood used in the construction of the hull has been reduced to a minimum. All the bulkheads on the gun and berth decks will be of metal, and it will be fitted with a pilot house on the spar deck, built entirely of the non-magnetic metal. Where it is necessary to use wood for any purpose, it will be treated with the electric fire-proofing process before being worked. A water-tight deck covered with half-inch plate will be worked from stem to stern, the sides sloping

down to 3 feet below the water line, and the flat or midship portion rising 18 inches above the same.

The Cleveland will have two searchlights, an electric signaling system and a complete installation of electric lights. The blower for ventilation and deck winches will be operated by electricity amidship. She will carry one 30-foot steam cutter, one 30-foot launch, two 28-foot cutters, one 28-foot whaleboat gig, one 28 foot whaleboat and one 18 foot dinghy.

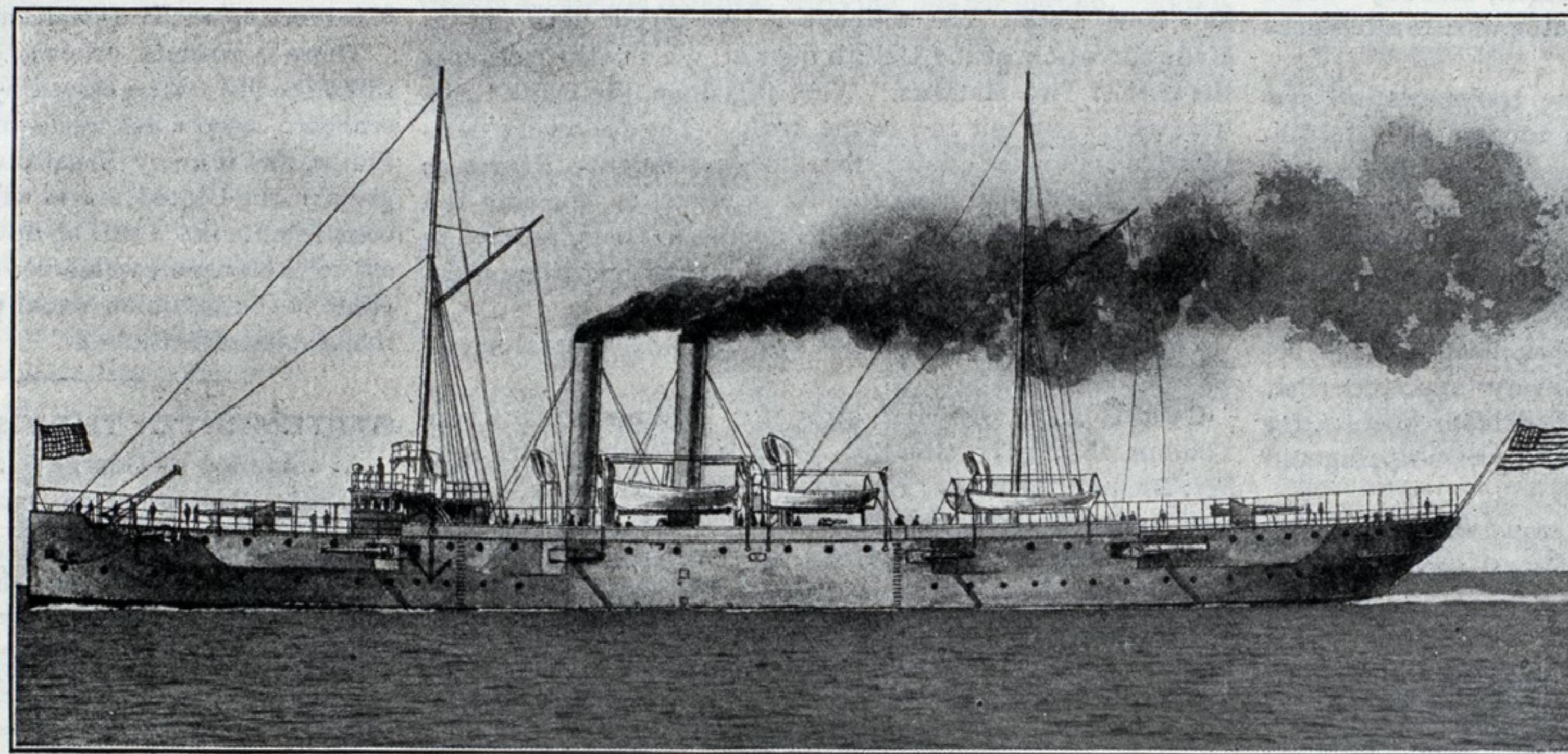
The Cleveland is to be fitted with a distilling plant, ice machine and refrigerating rooms. Quarters are provided for the following officers: Commanding officer, twelve ward room officers, ten junior officers, four warrant officers, eight warrant machinists, 238 sailors and twenty-five marines; total, 298.

The contract for the Cleveland was signed Dec. 14, 1899, her keel was laid Friday, June 1, 1900, and she will be the first of the six vessels of her class to be launched. She is the largest Government vessel as yet constructed by the Bath Iron Works, although the company is now receiving material for the battleship Georgia, work upon which will soon begin.

We are indebted to the Nautical Gazette, New York, for the accompanying illustration and descriptive matter.

TESTING STRENGTH OF CABLES.

In the use of wire ropes or cables which are subjected to great strain, it is desirable to find out what this strain may be in order to supply the proper strength of connection to prevent breakage. This great and varying strain is especially met with in lumber regions in which it is the



U. S. CRUISER CLEVELAND, 3,200 TONS DISPLACEMENT, LAUNCHED FROM THE BATH IRON WORKS SHIPYARD ON SATURDAY.

(By courtesy of the Nautical Gazette, New York.)

custom to fix a powerful engine, and then to lead a wire rope or cable around direction pulleys to the logs which are to be moved. The rope being fastened to the log, the power is applied until the log moves or the rope breaks. It will be evident that if the strength of the rope or cable was known and some means provided for indicating the strain thereon, such breakage could readily be avoided.

Henry M. Brittan, of San Francisco, Cal., has devised what he terms a stress apparatus arranged to be placed at any point desired between the parts to be tested, and to indicate the strain applied thereto. The patent he has procured on the apparatus has been assigned to the American Steel and Wire Company, of San Francisco.

In the construction shown in the patent, a cylinder is provided having a yoke which surrounds one end, the yoke being provided with means for attaching one end to cable.

Within the cylinder is a plunger which projects from one end, and is provided on its projecting ends with guides that embrace the yoke. Another yoke is secured to this plunger, surrounding the opposite end of the cylinder. Arranged upon one face of the cylinder is an indicating device having a pipe that leads to the interior.

The operation will be obvious. The ends of the ropes or cables are secured to the yokes, and when the strain is applied the plunger will be forced in the piston, the liquid or fluid arranged within will consequently be forced through the pipe and to the indicating device, which has a suitable scale and pointer to show the pressure applied.

IN FAVOR OF A SHIP SUBSIDY.

In a recent address delivered in Charlotte, N. C., Ellison A. Smyth, of Pelzer, S. C., discussed the necessity of a shipping bill to stimulate the carrying of cotton to China from southern ports. He said:

"We should heartily favor any measure that would tend to the rebuilding and strengthening of our merchant marine, and I would like to see the day when the United States flag will be as often seen on the high seas as it was fifty years ago. The Hanna subsidy bill, so called, is endorsed by the National Association of Manufacturers, and its enactment into law would be one step towards the re-establishment of our merchant marine. The Pelzer company is a large shipper of export cottons, and to-day we are shipping five car loads of sheetings and drills to China, and, as usual with our transcontinental shipments these goods are routed by the buyers by the most direct line to Canada, then by the Canadian Pacific railroad to Vancouver and by the British mail steamship line to China. It is perhaps not altogether strange, under all the circumstances, that while there are three railroad lines in the United States across the continent, and with steamship lines from San Francisco, the Canadian Pacific railroad and British mail steamship lines bag all the business. It is a fact, however, that from mills in South Carolina goods for China go first to Canada, and thence across the continent. If our steamship lines were also subsidized between San Francisco and China this would not be the case. If it were not for the advantages offered by the Canadian Pacific railroad—advantages that are being offered by reason of the subsidizing of this line by the

British Government—the southern cotton manuf'ct'res could not compete in freight rates with the English manufacturers, who can ship from Manchester, England, to Shanghai by the Suez canal at the rate of 50 per 100 pounds. In our effort to develop trade in South America we are confronted with the double freights we have to pay in shipping goods, first to Liverpool and then back across the Atlantic to South American ports. There are no steamship lines of any moment, or that have regular sailings, in existence between our ports and those of South America, whereas in Rio de Janeiro alone there are twenty-eight lines of steamships running regularly from Great Britain and the

continent. All of these lines are subsidized by foreign governments, and, of course, trade follows the flag. It has been suggested by one of our local papers that this could be overcome by the southern manufacturers chartering a steamer and sending a shipload of goods to South America. This idea lacks practicability, simply because goods are not consigned to export dealers, but are shipped on orders, and from samples previously furnished and in smaller quantities. It would be a costly experiment to consign a ship load of manufactured goods to any foreign port. The day of bartering with the natives is past."

LIFE SAVERS' TESTIMONIAL.

F. J. Hayes & Co., lumber dealers and vessel owners of Port Huron, have expressed their gratitude to the Pointe Aux Barques life saving crew for the gallant work done upon the Andrew Jackson, as follows:

"We desire to express to the public our appreciation and also to thank Capt. J. H. Frahm and his gallant crew of life-savers located at Point Aux Barques life-saving station for the valuable work done in rescuing the crew and securing the lumber from our vessel Andrew Jackson wrecked on Pointe Aux Barques reef during the terrible night of September 7th, 1901. The vessel proves to be a total loss, but through the efforts of the life-saving crew and excellent judgment of Capt. Frahm we were enabled to get the lumber from the wreck. Only those who sail the Great Lakes and are exposed to the storms and dangers of navigation appreciate the value of our life-saving service. Words fail to express the praise that Capt. Frahm and his noble crew are entitled to. Yours truly, F. J. Hayes & Co."



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WHY TRUSCOTT BOATS EXCEL.

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A DEEP WATERWAY TO THE COAST.

(C. E. RICHARDSON IN THE DULUTH NEWS-TRIBUNE.)

To an observer at close range, Duluth appears to be the principal point where the commercial advantage to the country of a deep waterway from our vast inland seas to the Atlantic ocean will show most clearly. Situated, as it is, at the farthest end of water transportation, and likewise at the nearest point to the most rapidly growing market of the world, it occupies a position so unique, that any "board of strategy" would recognize it as invulnerable to all attacks upon its commercial supremacy.

Already the immense globe-circling transportation system of the Morgan-Hill alliance has adopted the Duluth-Superior harbor as the point of trans-shipment in the stupendous trade relations now commencing between the two worlds. Their fleet of 6,000-ton lake carriers meet the rail systems of the Northern Pacific, Great Northern and other trunk lines at the waterfront of Duluth, where everything that nature can do to aid commerce has been lavishly bestowed, to which has been added every appliance that human ingenuity can devise and skilled labor operate, for the speedy, safe and economical handling of shipping and merchandise.

The dispatch with which a cargo is transferred from "sail to rail" or from "rail to sail" is almost incredible. A vessel of the largest size can discharge her cargo of coal and load with wheat, flour or iron ore, and be off on her return trip within the daylight hours of one day, whereas, in some ports, it would be the work of days, if not weeks. Here is a harbor of over sixty square miles, with one hundred and eighty-four miles of dock line, suited to the convenience and needs of the world's commerce, and so land-locked by natural formations as to make safe anchorage in all weather. Its depth has been increased by the expenditure of the \$3,000,000 appropriation made by Congress for that purpose six years ago, under the continuous contract system now being completed. The government has also improved the Duluth ship canal by the construction of massive concrete piers decorated with steel light houses and illuminated at night by 160 arc electric lights.

To further accentuate the statements made relative to the size and importance of the Duluth-Superior harbor, it will be necessary to surprise the reader with the stupendousness of the figures used and the magnitude of the comparisons made. For instance, the commerce of the Duluth ship canal embraced in 1899 over three times as many vessels as passed through the Suez canal, and exceeded the latter's traffic by nearly a million tons. Considering the fact that all maritime nations of the world are engaged in the Suez canal traffic, while that of our harbor is almost exclusively American, this makes a striking comparison. The number of vessels arriving at and clearing through this harbor in 1880 was 550, in 1890 2,534, and in 1900 11,334. The average number of tons cargo received during the 234 days of the navigation season was 13,142, while the daily shipments amounted to 36,923 tons. The amount of freight passing through our water gate in some single days, if loaded on cars would make a train twenty-five miles long. The values of these cargoes for the year 1900 are estimated by the War Department as follows: Receipts, \$32,565,381; shipments, \$102,543,815; total valuation of the annual traffic, \$135,109,196, or nearly a half-million dollars per day, and shows an increase of forty millions of dollars over 1895. Of course

the navigation season is limited by the early closing and late opening of the Sault canals, and the other narrow channels, but it is simply a question of time when, by the use of steam in the canal locks, navigation will be open the year around.

Another startling fact is elicited from the figures of the Bureau of Statistics of the Treasury Department and shows the marine business of the Duluth-Superior harbor to rank the third highest in the world—exceeded only by London and New York. The tonnage of this harbor does not include the whole of the Duluth district, which also embraces the port of Two Harbors. Were this done, the Duluth district would outrank any in the world. The following comparative statement quoted from the government's figures, is a very interesting compendium of facts, as showing the magnitude of commerce on the northern lakes, relative to what we have formerly considered the chief maritime pathways of the world:

Tonnage of the principal ports of the world—total arrivals and clearances:

Cardiff, 13,420,355; Hull, 7,585,183; Liverpool, 11,818,000; London, 16,529,075; Glasgow, 3,612,934; Hamburg, 14,198,817; Bremen, 4,034,965; Havre, 4,511,770; Bordeaux, 2,051,587; Dunkirk, 2,542,347; Marseilles, 9,629,114; Antwerp, 13,573,472; Rotterdam, 11,768,863; St. Petersburg-Cronstadt, 3,000,016; Odessa, 2,645,959; Geneva, 3,979,942; New York, 16,020,290; Boston, 4,145,187; Philadelphia, 3,736,615; Baltimore, 3,452,654; New Orleans, 3,395,442; San Francisco, 2,691,366; Puget Sound ports, 2,277,320; Duluth-Superior, 14,387,068; Chicago, 9,966,082; Chicago district, including Chicago, South Chicago, Michigan City and Waukegan, 14,186,190.

The advantage to Duluth's harbor of a "deep waterway to the sea," can be better implied than stated, in the space allotted for the purpose. The value of such an institution is fully appreciated here, but it is doubtful if the country at large has any conception of the great benefit which would accrue to every interest in the United States by a canal system which would admit of the shipment from its lake ports to the ocean ports of the world, of our products, without breaking bulk. It would mean a lessening of freight rates and a corresponding increase of profits, upon all our exports. It means a reduction to our citizens in the cost of every imported article. It means the passage through our country of the commerce of the orient, and the levy upon these cargoes of immense sums in favor of American labor. It means that all of the millions of tons of freight which annually go "around the horn" and across the isthmus, would come via our American transcontinental rail lines to the nearest connection with our inland waterway, there to be handled by American labor and transshipped on American boats, either to American markets or to European ports. It means the reception in the heart of America of foreign ships, the ready exchange of commodities, the fitting out of such vessels with supplies and their crews with American-made clothing, etc. In fact, it would mean, when finally established, the continued, increased and permanent supremacy of American commerce over all the world.

No enterprise could be inaugurated by the United States government with the same amount of money, which would so redound to the success and emolument of its citizens, as this much-mooted plan for a system of canals to connect the lakes with the ocean. Just how this is to be done is a ques-

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tion which must be left in the hands of the national authorities; but it will be done, and done in one or two ways—either the Canadian government will improve the St. Lawrence river route and share with us in the benefits, or the United States will adopt a plan and keep within its own borders a prize rich in promise and advantageous to its own millions of people. This, from a purely commercial viewpoint, and without a particle of sentiment, is the "paramount issue," and it is gratifying to note the growing favor which it is meeting with our statesmen.

There is no state, or even a congressional district, whose interests will not be served by the extension of our Atlantic seaboard 1,500 miles westward, into the heart of the United States, and if every Senator and Representative in the Congress of the United States will stand by the interests of his constituents there will be no difficulty in securing this great aid to American commerce; when that is established the value of the Isthmian canal will be more apparent, and its inauguration facilitated.

STATEMENT OF THE VISIBLE SUPPLY OF GRAIN.

As compiled by George F. Stone, Secretary Chicago Board of Trade, September 28, 1901.

CITIES WHERE STORED.	WHEAT Bushels.	CORN Bushels.	OATS Bushels.	RYE Bushels.	BARLEY Bushels.
Buffalo	1,030,000	861,000	266,000	83,000	522,000
Chicago	4,959,000	6,975,000	1,941,000	2,000	21,000
Detroit	298,000	5,000	109,000	196,000	36,000
Duluth	4,658,000	658,000	504,000	492,000	398,000
Fort William, Ont.	1,403,000	—	—	—	—
Milwaukee	120,000	19,000	650,000	32,000	137,000
Port Arthur, Ont.	60,000	—	—	—	—
Toledo	686,000	671,000	1,184,000	396,000	6,000
Toronto	27,000	—	—	—	38,000
On Canals	390,000	282,000	532,000	17,000	199,000
On Lakes	2,439,000	1,811,000	188,000	—	248,000
On Miss. River	75,000	—	—	—	—
Grand Total	35,304,000	13,489,000	8,972,000	1,774,000	1,875,000
Corresponding Date, 1900	55,409,000	7,492,000	11,425,000	926,000	—
Increase for week	2,679,000	559,000	225,000	130,000	1,464,000
Decrease "	—	—	—	—	459,000

While the stock of grain at lake ports only is here given, the total shows the figures for the entire country except the Pacific Slope.

BRISTOL'S PATENT LIFE PRESERVER.

Mr. Howard C. Bristol, East Tawas, Mich., has patented a new life belt or buoy which appears to be superior to some of the former and present manufacturers.

Capt. James Davidson, than whom no one is in a better position to express an opinion on the device says, that "it is one of the finest life preservers I have ever seen. The buoyancy and plan, also the idea of the life preservers, is the best that has yet been perfected."

Where it is not desired to use cork, the belt is made out of cedar or other light wood in which air tubes are inserted and blocks strung together something after the manner of the present ordinary cork jacket. From tests made with the buoy it is found that they support a weight of 15 pounds more than those now in general use and other advantages are also claimed for the new life savers.

The Photographer—Do you wish to pose three-quarters full? The Colonel—Just as I am suh! I don't carry a graduated scale with me.—Detroit Journal.

SUN'S AMPLITUDES.

The following approximate amplitudes of the Sun's rising or setting will be given each week in this column during the season of navigation. A second bearing may be taken by compass at sunset, by reversing the east bearing given for the nearest latitude, as the change in declination for a few hours makes but a slight difference in the true bearing of the sun's setting. The bearing may be taken when the sun's center is on the horizon, rising or setting. The elements which may be obtained by taking these amplitudes are the quantities known as local attraction, variation and deviation, or the total difference between compass and true, or geographical bearings.

LAKE ERIE AND S. END LAKE MICHIGAN, LAT. 42° N.

Date. Amplitude. Bearing P'ts. Bearing Comp.
Oct. 3... E. 5° S. = S. 7½ E. = E. ½ S.
Oct. 6... E. 6° S. = S. 7½ E. = E. ½ S.
Oct. 9... E. 8° S. = S. 7½ E. = E. ¾ S.

LAKE ONTARIO, S. END HURON AND CENTRAL PORTION
LAKE MICHIGAN, LAT. 44° N.

Date. Amplitude. Bearing P'ts. Bearing Comp.
Oct. 3... E. 6° S. = S. 7½ E. = E. ½ S.
Oct. 6... E. 7° S. = S. 7½ E. = E. ¾ S.
Oct. 9... E. 8° S. = S. 7½ E. = E. ¾ S.

N. END LAKES HURON AND MICHIGAN, LAT. 46° N.

Date. Amplitude. Bearing P'ts. Bearing Comp.
Oct. 3... E. 6° S. = S. 7½ E. = E. ½ S.
Oct. 6... E. 7° S. = S. 7½ E. = E. ¾ S.
Oct. 9... E. 9° S. = S. 7½ E. = E. ¾ S.

LAKE SUPERIOR, LAT. 48° N.

Date. Amplitude. Bearing P'ts. Bearing Comp.
Oct. 3... E. 6° S. = S. 7½ E. = E. ½ S.
Oct. 6... E. 8° S. = S. 7½ E. = E. ¾ S.
Oct. 9... E. 9° S. = S. 7½ E. = E. ¾ S.

With a compass correct magnetic, the difference between the observed and true bearing or amplitude will be the variation for the locality. Should there be any deviation on the course the vessel is heading at the time of taking the bearing, the difference between the observed and the true amplitude after the variation is applied will be the amount of deviation on that course. If the correct magnetic bearing is to the right of the compass bearing, the deviation is easterly, if to the left, the deviation is westerly.

WM. R. TRIGG CO., Richmond, Va., have just been awarded the contract for a steel tug-boat for the Pennsylvania Railroad Co., to be used in New York harbor. The order for dredging the Southwest Pass of the Mississippi river, for which Capt. J. C. Sanford, U. S. Engineers, at Charleston, opened bids Aug. 13, has been awarded to the Wm. R. Trigg Co. The pumping machinery for this dredge will be furnished by the Bucyrus Co., of South Milwaukee, Wis., and will consist of two 20-inch single suction centrifugal dredging pumps with direct compound condensing engines and the necessary dredging outfit. This dredge will be the largest and most complete sea-going dredge which has yet been built for the U. S. Government. It is the first sea-going hopper dredge which the Government has purchased with a steel hull and twin screws. The dimensions will be, over all, 27½ feet; molded beam, 47½ feet; molded depth, 23 feet. She will have a hopper capacity of about 2,000 cubic yards. The propelling engines will be compound condensing with cylinders 20 and 40 by 30 inch stroke. In other respects the dredge will be a complete sea-going ship with extensive cabin accommodations for officers and crew, with complete electric light outfit. She will steam at the rate of not less than ten knots per hour.

REPORTED BY THE LOOKOUT.

North and South Tonawanda received six to seven million feet of lumber on Tuesday. Local firms are stocking up a winter supply. Lumber canal rates are \$1.60 to Albany and \$2 to New York.

The Celtic can carry between 2,700 and 3,000 passengers without crowding. Of these, 350 are in the saloon, 150 in the second cabin and 2,300 in the steerage. Her crew numbers 350, nearly half of whom belong to the steward's department and look after the wants of the passengers.

A gentleman who is deeply interested in the enactment of a subsidy law has been searching the published utterances of President Roosevelt with a view to discovering his exact position. The search has been virtually fruitless, however, for the reason that, beyond general statements advocating the spread of American commerce, the new President has not, apparently, placed himself on record.

There has lately been a great deal of speculation as to the conditions affecting the flow of water to and from the Great Lakes, but it appears to be mostly guess work. The fact is the Great Lakes get their supply from an enormous watershed, and the quantity which runs into them and out of them varies as the season is dry or wet. But from present appearances there is enough on hand to keep the falls going indefinitely.

Gradually the barges are forcing the fore-and-aft rigged craft from the coastwise coal, lumber and ice trades on the Atlantic. Recently they have entered the West India business. So much of the coastwise trade has been taken by the barges that owners of schooners have begun sending their vessels across the Atlantic, carrying lumber and oil. This is considered expensive, as the schooners are not always sure of a return cargo. Barges now lead the schooners in carrying coal from Philadelphia.

Northern Michigan and Wisconsin lumbermen are manifesting a constantly increasing interest in the timber lands of the Pacific coast. From Marinette and its sister city across the river there has been a great exodus of mill men and investors to the far western country for many months past and the movement is gradually spreading to other sections of the upper peninsula. Several hundred have emigrated from the Menominee river during the past few years, and a party of mill men expect to leave next week.

Michael McLaughlin has brought suit against the Sandusky and Island Steamboat Co. to recover \$1,000, in which amount he claims to have been damaged by having been thrown off the steamer Arrow at Cleveland. Plaintiff claims that he bought a ticket at Cleveland to Sandusky, via the steamer Arrow; that the employes of the boat refused to accept it, and wrongfully, forcibly, maliciously and unlawfully did force, expel and drag him from the boat in the presence of many of his personal friends. This action caused him much mental distress, he contends, and he asks damages in the foregoing amount.

At a meeting of the Commerce Committee of the Maritime Association of the Port of New York, held on Monday, which includes in its membership the members of the executive committee of the association, it was decided to discontinue the association's membership in the Canal Association of Greater New York and in the New York Commerce Convention. President Kunhardt was directed to inform the officers of the associations referred to. This action leaves the Maritime Association of the Port of New York free to pursue an entirely independent course with reference to affairs concerning New York's commerce and canals.

NOTICE TO MARINERS.

LIGHT-HOUSE ESTABLISHMENT,
OFFICE OF THE LIGHT-HOUSE INSPECTOR, 11TH DISTRICT,
DETROIT, MICH., Sept. 28, 1901.

PORTRAGE RIVER, MICH., COLE CREEK BEACON.—Notice is hereby given that the structure of the Cole Creek Beacon Light, Portage River, Mich., was burned down on the morning of the 27th instant, and no light will be exhibited at this point until further notice.

By authority of the Light-House Board.

J. C. WILSON, Commander, U. S. N.,
Inspector 11th District.

LIGHT-HOUSE ESTABLISHMENT,
OFFICE OF THE LIGHT-HOUSE INSPECTOR, 9TH DISTRICT,
CHICAGO, ILL., Sept. 28, 1901.

VIENNA SHOAL, BUOY.—Notice is hereby given that the red and black second-class can buoy, marking the northwest point of Vienna Shoal, northerly end of Lake Michigan, is adrift. It will be replaced as early as practicable. The shoal is temporarily marked by a red and black spar buoy.

By authority of the Light-House Board.

F. M. SYMONDS, Commander, U. S. N.,
Inspector 9th L. H. District.

NEWFOUNDLAND—CAPE RACE.

CHANGE IN CHARACTERISTIC OF FOG WHISTLE.—From and after the 1st November, 1901, the fog whistle at Cape Race light station, maintained by the Government of Canada, on the southeast extremity of Newfoundland, will be changed to give double blasts of five seconds, at intervals of one minute, thus:

Blast	Silent interval	Blast	Silent interval
5 sec.	5 sec.	5 sec.	45 sec.

This change will be carried into effect without further notice.

HEIGHT OF LIGHT.—The lighthouse tower at this station is 46 feet high from the ground to the vane on the lantern, instead of 40 feet, as stated in the list of lights; the light is elevated 125 feet above high water mark, instead of 180 feet, as therein stated; it should be visible 17 miles.

F. GOURDEAU,
Deputy Minister of Marine and Fisheries,
Department of Marine and Fisheries,
Ottawa, Canada, 6th September, 1901.

All bearings, unless otherwise noted, are magnetic and are given from seaward, miles are nautical miles, heights are above high water, and all depths are at mean low water.

Pilots, masters or others interested are earnestly requested to send information of dangers, changes in aids to navigation, notices of new shoals or channels, errors in publications, or any other facts affecting the navigation of Canadian waters to the Chief Engineer, Department of Marine and Fisheries, Ottawa, Canada.



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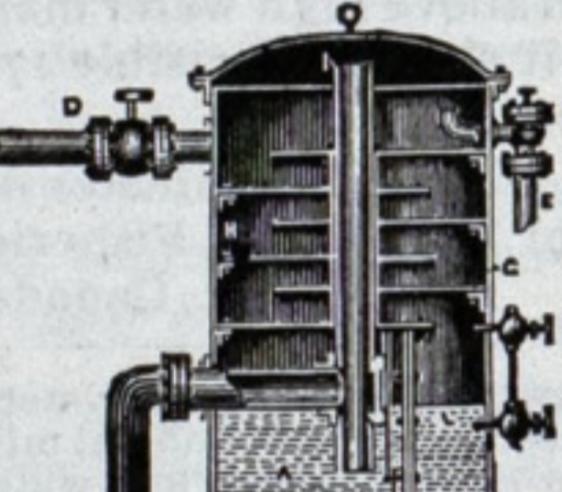
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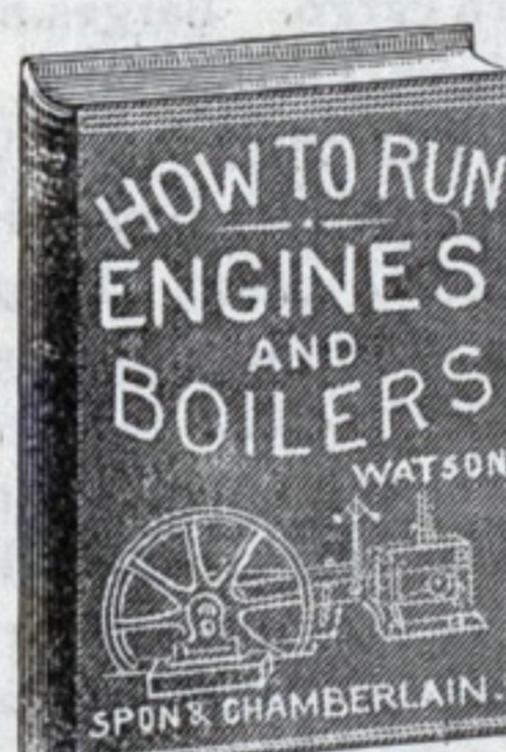
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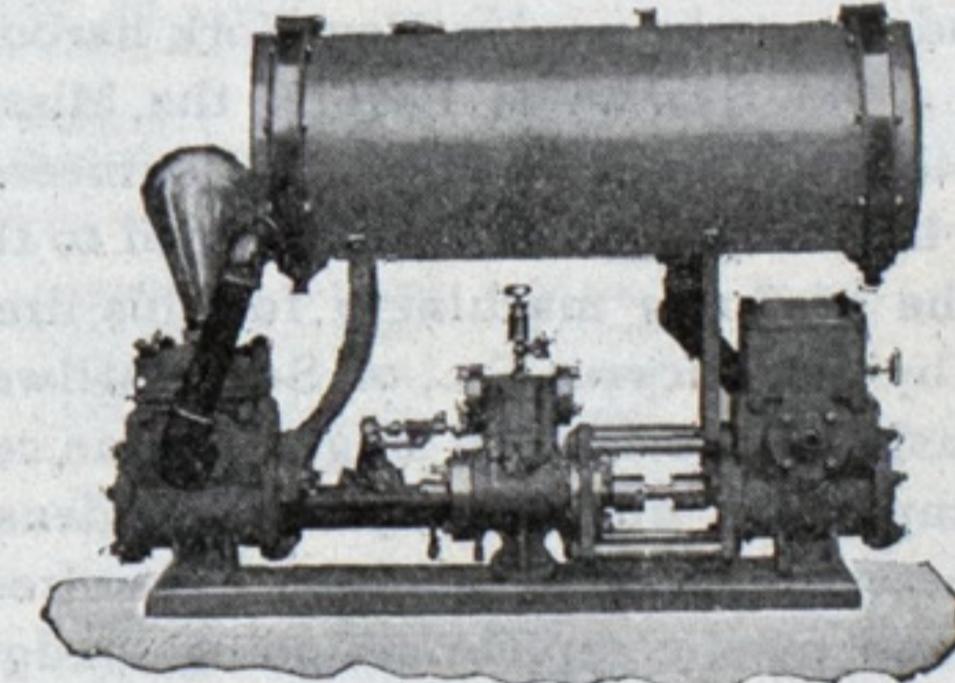
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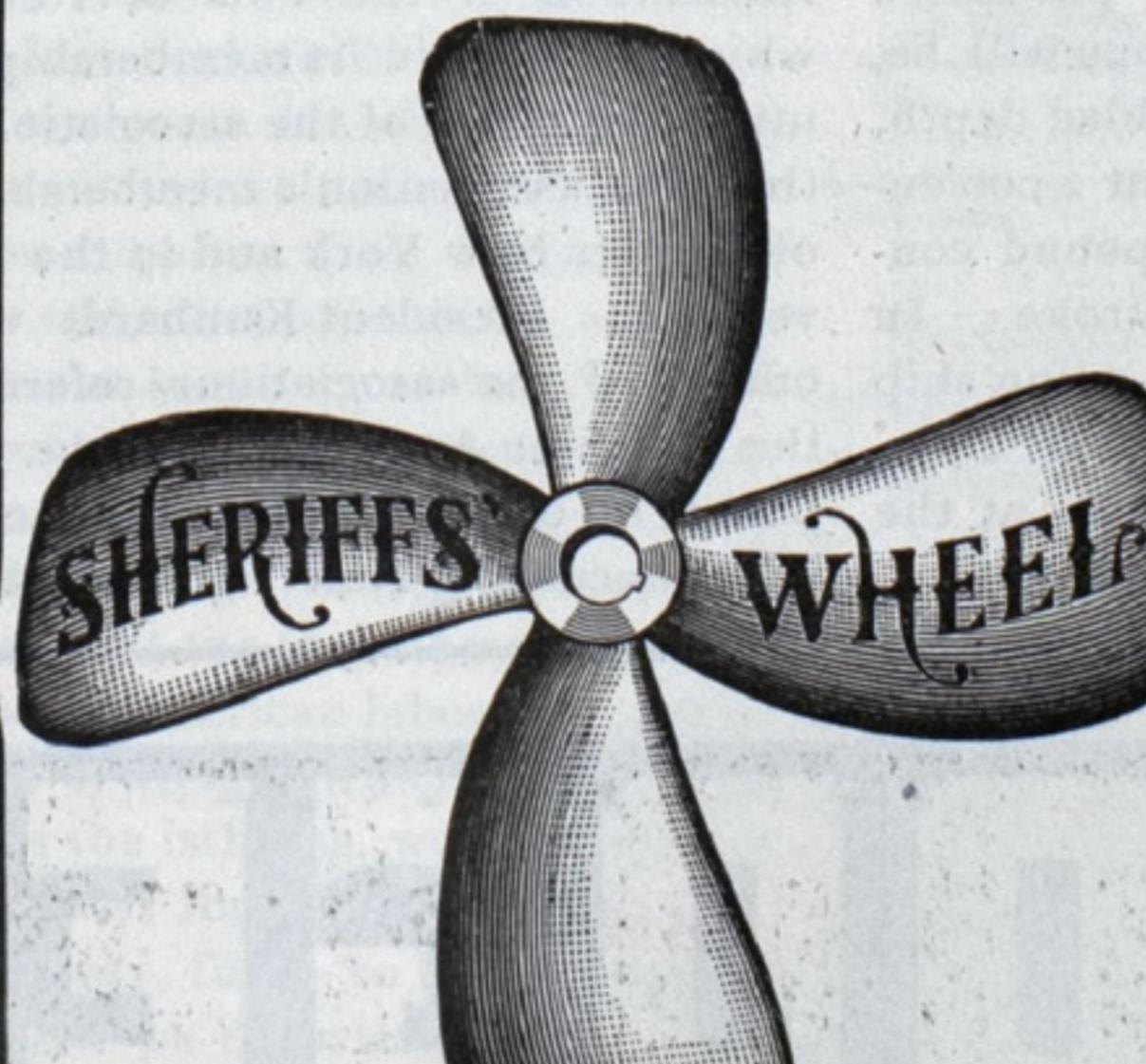
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LAUNCHES OF THE WEEK.

The steel cargo steamer Christopher, built at the W. Superior yards of the American Ship Building Co. to the order of the Milwaukee Tug Co. was successfully launched on Saturday last.

When the superintendent of construction, Mr. Williams, gave the sign for the release of the craft Mrs. C. Brockman, who had been chosen to christen the vessel broke a bottle of champagne over the bow and said: "I christen thee Christopher." The champagne bottle was tastefully decorated in red, white and blue ribbon. The platform from which the christening ceremony was performed contained a number of interested visitors from Milwaukee, among whom were Mr. C. H. Starke and wife of Milwaukee, F. W. Wollerger and wife of Milwaukee, C. Brockman and wife of Chippewa Falls, Mr. and Mrs. W. H. Meyers of Milwaukee.

The general hull dimensions of the Christopher are 414 feet over all, 394 feet keel, 48 feet beam and 28 feet molded depth. Engines, triple expansion; diameter of cylinders, 22, 35 and 58 by 40 inches stroke. Boilers, three Scotch type, 12 by 12 feet, tested for 170 pounds steam.

W. H. Meyers, Milwaukee, is the managing owner and Capt. W. E. Wright will take charge, with Scott Pratt as chief engineer.

The American Ship Building Co. built to the order of the Western Transit Co. at their branch yard in Buffalo, a steel steamer named the Chicago, launched on Saturday last. Dimensions of the Chicago are as follows: Length over all, 343 feet; length between perpendiculars, 325 feet; molded beam, 44 feet; molded depth, 28 feet. Her machinery equipment will consist of a quadruple expansion engine, 19, 27½, 40 and 58 by 42. She will have three Scotch type boilers, each 11½ by 11½ feet, tested for 210 pounds of steam.

Before the loss of the Hudson the Western Transit Co. was in need of an addition to its fleet, therefore, it is not improbable that the fleet will be still further increased during the coming year, for the lake trade of the New York Central lines is attaining large proportions.

The steel steamer Henry Steinbrenner, built at the yards of the Jenks Ship Building Co., Port Huron, to the order of Mrs. Anna C. Minch, Cleveland, was successfully launched Saturday afternoon. The Steinbrenner is a sister ship of the Capt. Thomas Wilson, measuring 440 feet over all, 50 feet beam, and 26 feet deep. Miss Minnie Steinbrenner christened the new boat, and Mr. and Mrs. Steinbrenner were present at the launch.

A NAVAL TRAINING SHIP.

A strong effort is being made to have a training ship for the United States navy established on the lakes. The project is being fathered by Commander Hawley, U. S. N., who was stationed in Chicago in charge of the naval recruiting station during the Spanish war. Commander Hawley is now on the U. S. training ship Hartford in service. He already has taken the matter up with Congressman Foss and it is hoped that the next Congress will make an appropriation for the ship and her maintenance. Commander Hawley states that if a ship was stationed on the lakes it would attract a large number of boys and they would be given a brief trial on board, giving the officers a chance to weed out the incompetents before transferring them to the coast.

The American Ship Windlass Co., Providence, R. I., have just furnished two large electric gypseys to the New York, New Haven & Hartford R. R. Co., to go on their Oak Point pier, on the Harlem river. The water there is very deep and the current is strong and they want these powerful electric

gypseys to pull the boats up to the wharf. They are capable of exerting 75,000 lbs. pull. The Providence company is also building an electric capstan, which is nearly ready to ship, for the New York Ship Building Co., at Camden, N. J., for hauling railroad cars.

TREASURY DEPARTMENT, }
WASHINGTON, D. C., Sept. 11, 1901. }

SEALED PROPOSALS, ON SEPARATE FORMS, are invited and will be received at this department until 2 o'clock p. m., Saturday, October 12, 1901 (at which time and place they will be opened in the presence of attending bidders), for the construction of one steam propeller for the United States Revenue Cutter Service for harbor duty at Boston, Massachusetts, to be known while in course of construction or until launched as No. 9, R. C. S., and for one steam propeller for said service, for duty in the St. Mary's River, Michigan, to be known while in course of construction or until launched as No. 10, R. C. S. Said vessels are to be constructed in accordance with plans and specifications provided by the Secretary of the Treasury, which, together with forms of proposals, contracts, etc., may be obtained upon application to this department. Bids must be addressed to the Secretary of the Treasury, and be endorsed on the envelope "Proposals for Steamers for Revenue Cutter Service." The right is reserved to reject any or all bids, and to waive defects if deemed for the interest of the Government so to do. (Signed),

O. L. SPAULDING,
Acting Secretary.

38-39

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For further particulars see
"Passenger Lines on the Lakes,"
page 18.

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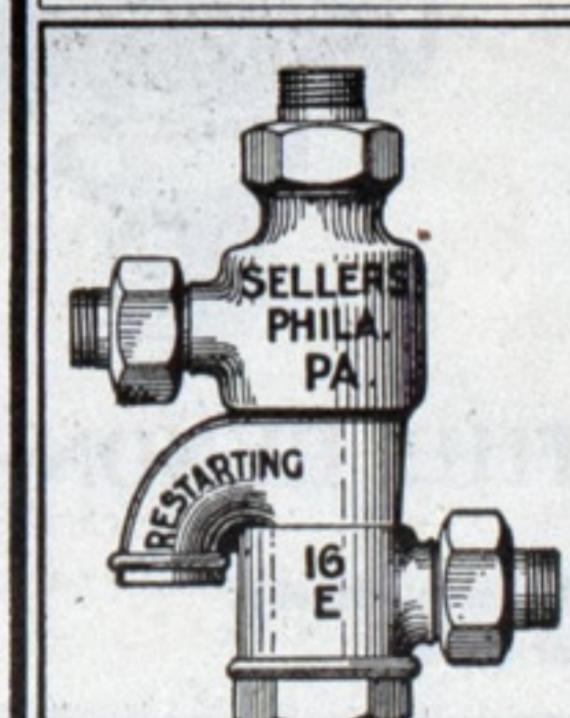


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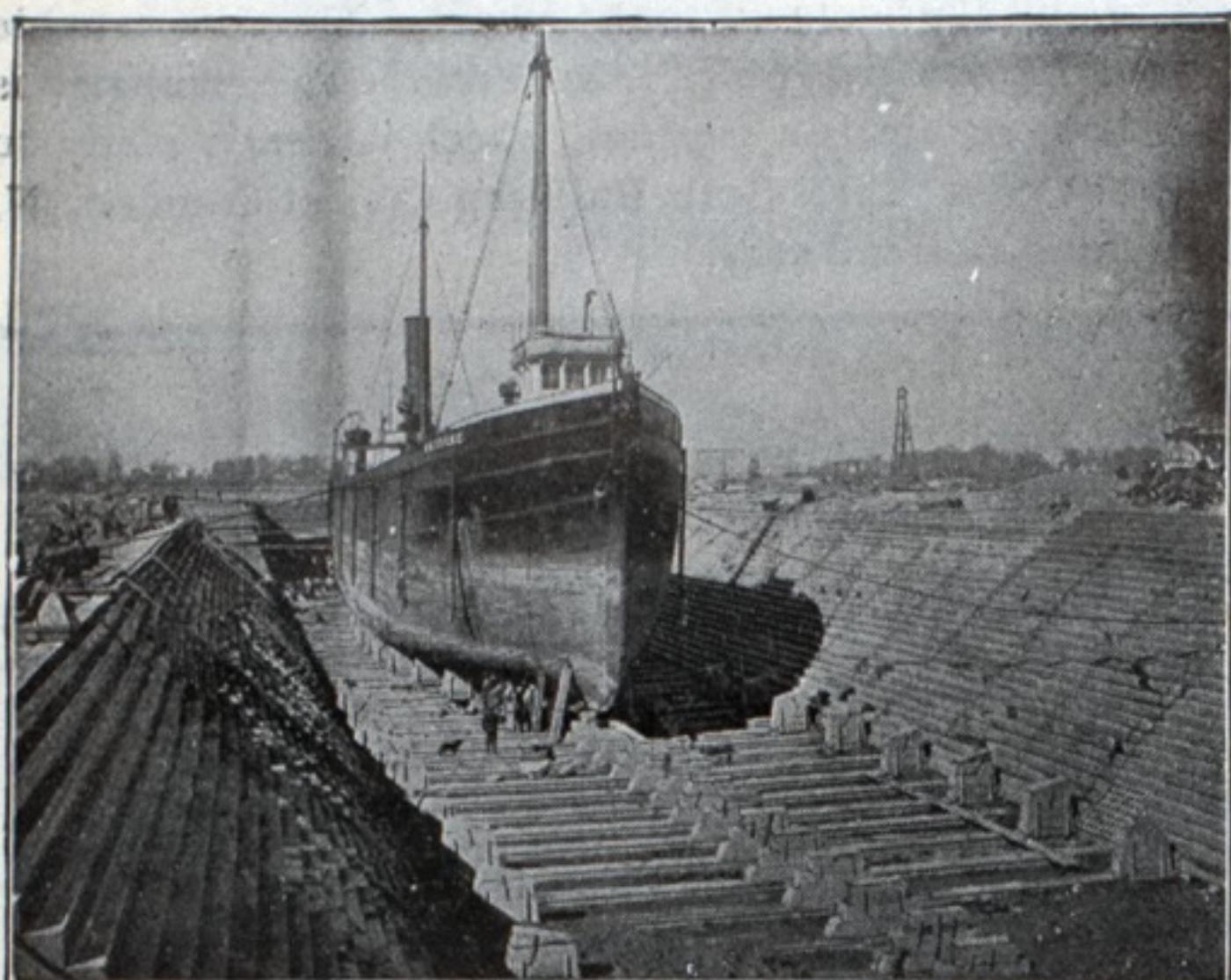
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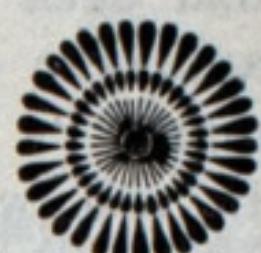
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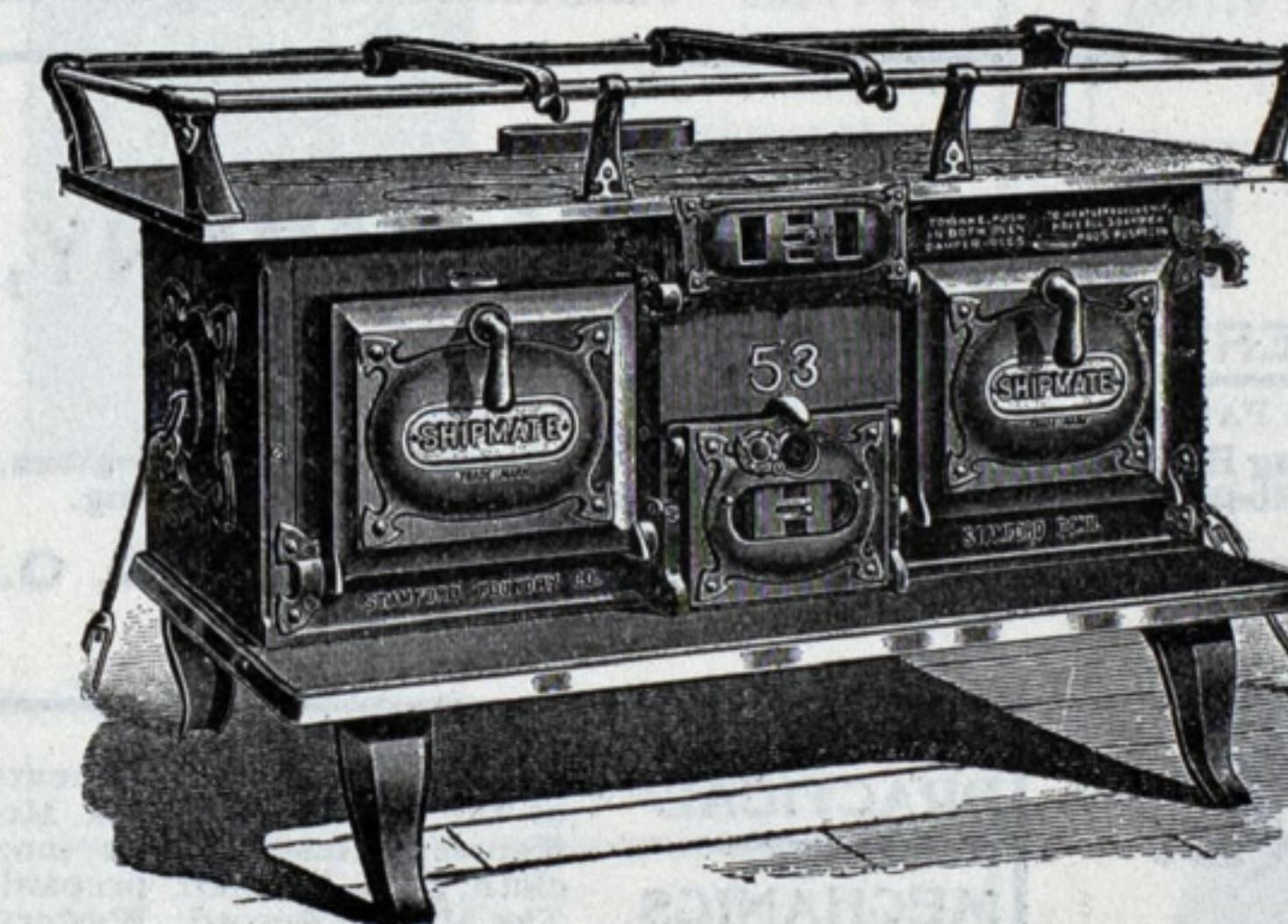
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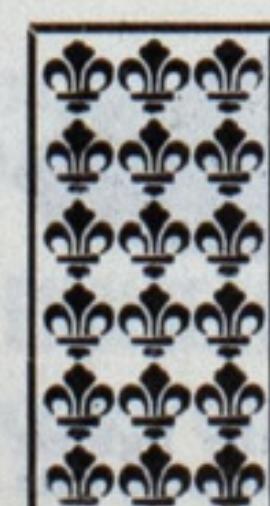
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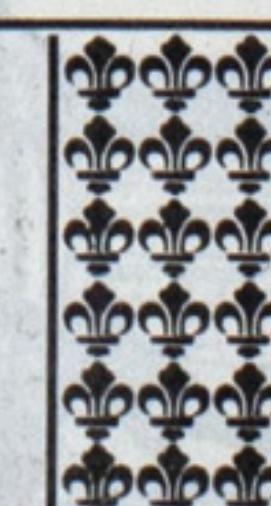
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